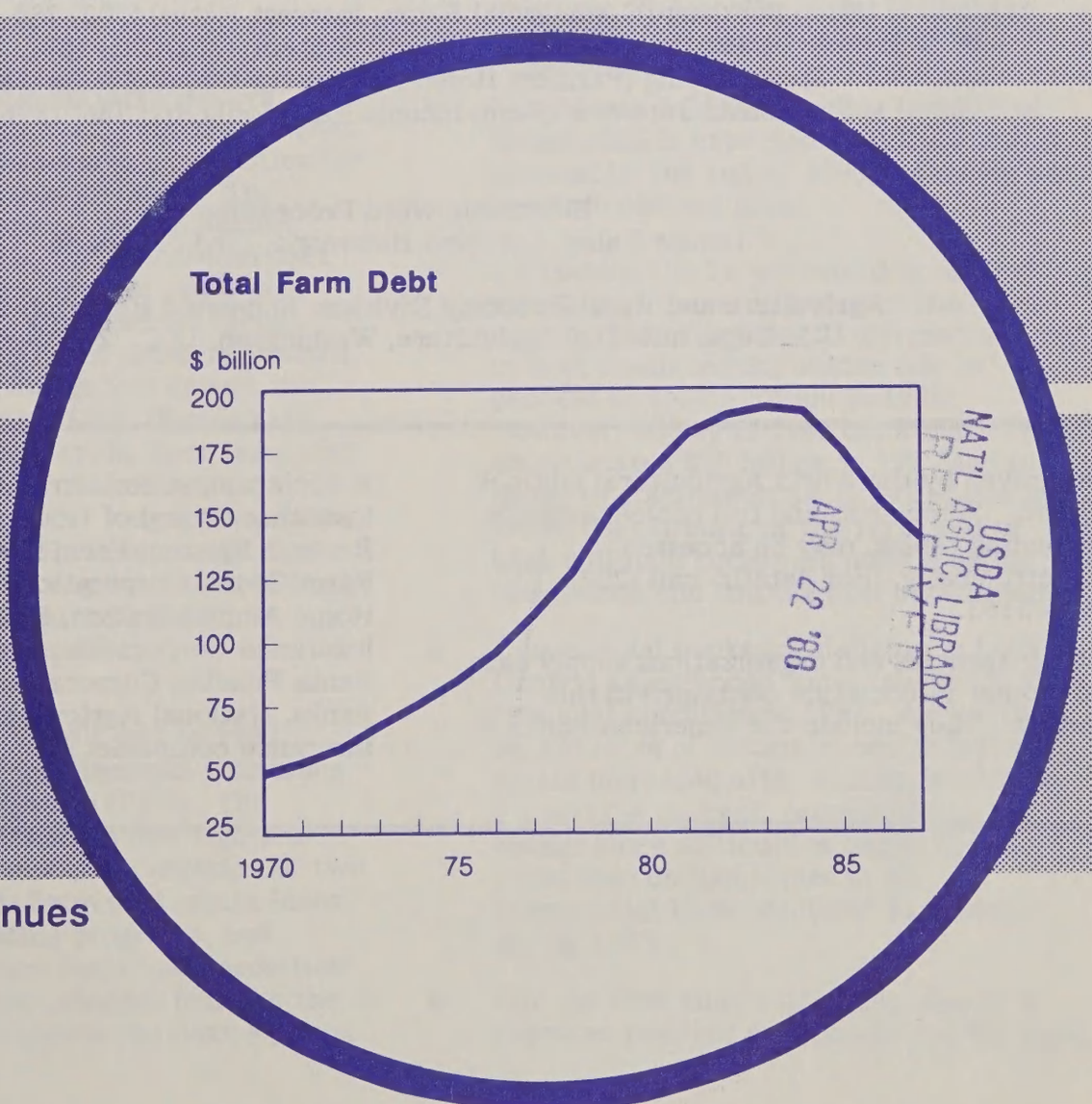
United States
Department of
Agriculture

Economic
Research
Service

AFO-28
April 1988

Agricultural Finance

Situation and Outlook Report



Total farm debt continues to decline.

CONTENTS

Situation Coordinator
Jerome Stam (202) 786-1892

Principal Contributors
Deano Hagerman (Graphics) (202) 786-1897
Ralph Monaco, (General Economic Conditions) (202) 786-1784
Michelle Huber (General Economic Conditions) (202) 786-1784
Kenneth Erickson (Farm Economy) (202) 786-1798
Richard Kodl (Farm Economy) (202) 786-1807
Jerome Stam (Current Lender Loan Portfolios, Life Insurance Companies) (202) 786-1892
Gregory Gajewski (Commercial Banks) (202) 786-1893
Ellen Burkhart (Commercial Banks, Interest Rates) (202) 786-1892
Merritt Hughes (Farm Credit System) (202) 786-1892
Steve Koenig (Farmers Home Administration) (202) 786-1893
Ronald Jeremias (Farm Income Taxation) (202) 786-1896

Electronic Word Processing
Denise Raley, Lorraine Hammond, Linda Franklin

Agriculture and Rural Economy Division, Economic Research Service
U.S. Department of Agriculture, Washington, D.C. 20005-4788

Approved by the World Agricultural Outlook Board. Summaries and full outlook reports, including tables, may be accessed electronically. For details, call (202) 447-5163.

Many agencies and organizations supply data and other information contained in this report. They include the American Bankers Association, American Council of Life Insurance, Board of Governors of the Federal Reserve System, Farm Credit Administration, Farm Credit Corporation of America, Farmers Home Administration, Federal Deposit Insurance Corporation, Federal Farm Credit Banks Funding Corporation, Federal Reserve Banks, National Agricultural Service, and life insurance companies.

SUMMARY

Net cash farm income rose for the fourth straight year in 1987 to a record $57 billion. The increase reflected large Federal supports, lower operating costs, and a strong year for livestock. Agriculture's financial position improved as land values rose an average 3–5 percent and farm debt declined roughly 9 percent to $141 billion, down $52 billion from the 1983 peak. Higher asset values and continued debt retirement boosted farm equity for the first time since 1980.

Net cash income may decline to $50–55 billion in 1988 as Federal sup– ports are gradually reduced, the 3–year drop in production costs comes to an end, and livestock earnings decrease after 2 years of growth. Net farm income, after reaching a new nominal high of $45 billion last year, may total $40–45 billion. A continued fall in depreciation expenses and an expected increase in the value of farm inventories will help support net farm income.

All major institutional farm lenders report early loan repayment, rela–tively weak loan demand, and considerable competition for existing quality farm loan business. The overall financial situation of farm lenders improved in 1987, aided by accelerated debt repayment, moderating interest rates, and higher farm earnings. Commercial farm lenders generally have fewer delinquent loans and charge–offs, and all lenders except the Farmers Home Administration (FmHA) are experiencing reduced stress in their farm loan portfolios. Farm loan problems remain significant, particularly for longer term real estate loan portfolios. However, apart from the FmHA, significant progress has been made by farm lenders on restructuring and liquidating problem farm debt.

The Agricultural Credit Act of 1987 reorganized and provided financial assistance for the Farm Credit System (FCS). The legislation includes numerous new rights to FCS and FmHA borrowers, the creation of two secondary markets for farm real estate loans, changes in FmHA lending programs, and Federal funding of State farm loan mediation programs. The act also provides loans to the FCS for up to $4 billion over the next 4 years. Interest payments will be made over 15 years, beginning in 1989, with the cost split between the Treasury and the FCS.

Federal income tax reform has reduced the tax burden on most farmers as individuals, but income from farm investments is generally taxed more heavily. The self–employment tax continues to rise, surpassing the income tax in importance for many low– and middle–income farmers.

Highlights of the agricultural finance outlook are:

- The bidding up of farmland prices, following a 5–year downslide, has signaled improved U.S. farm financial performance. Farm asset growth in 1987 was primarily due to an estimated $15–25 billion increase in real estate values, with sharpest gains in the Corn Belt and Northern Plains. The trend is likely to continue to a lesser degree in 1988.

- Total farm debt outstanding (excluding households) is expected to fall another 6 percent by the end of 1988, following last year's 9–percent drop.

- Reflecting the 31–percent drop in asset values that occurred between the 1981 peak and 1986 and the 15–percent decline in debt levels, equity values fell 34 percent to $536.6 billion in 1986. However, equity in 1982 dollars increased an estimated $17 billion in 1987 and is likely to stabilize at $480–495 billion in 1988. The firming of the farm equity base will help borrowers meet existing obligations and finance new investments.

- Commercial banks specializing in farm finance experienced some rebound in their financial condition in 1987. Agricultural banks' rates of return on equity and on assets increased after sinking in 1986 to 5.1 and 0.4 percent, respectively--the lowest since difficulties began in 1982. Farm loan delinquencies at all commercial banks declined $1 billion during 1987.

- For the first time since 1985, the FCS reported positive net income for the third

quarter of 1987. However, this was accomplished only by taking funds from loan loss reserves. FCS loan quality improved during 1987, but net loan volume dropped to $50.4 billion. Lower interest rates to borrowers remain a priority.

- Nearly 33 percent of all FmHA farm loans and about 26 percent of the principal outstanding were delinquent on September 30, 1987. The slight 2.5-percent increase in the dollar amount of delinquent loans and 14,000 fewer problem loan cases at midyear indicate that FmHA's delinquency rates may have peaked. Nonetheless, FmHA remains behind other lenders in dealing with problem loan portfolios.

- FmHA farmer loan demand declined in fiscal 1987. Obligations totaled just under $3.1 billion, down 29 percent from the previous year, and repre- sented only 67 percent of authorized appropriations. Total outstanding principal on FmHA loan programs decreased nearly $1.1 billion from 1986.

GENERAL ECONOMIC CONDITIONS

Indicators of general economic activity were mixed in 1987. Financial markets were volatile, stock prices plummeted by record amounts, and the exchange value of the dollar declined sharply at year end. Overall production of goods and services, however, grew strongly during the year, led by growth in export-oriented industries and sectors producing investment goods. Employment in goods-producing sectors rebounded in 1987, after 2 lackluster years. The "twin" deficits moved in different directions during the year, with the Federal deficit falling from fiscal year 1986's $211 billion to $148 billion, while the much-watched merchandise trade deficit increased slightly to about $170 billion.

Because volatile financial markets usually signal some sort of general economic contraction, while strength in export markets and capital spending signal continued expansion, analysts are more uncertain than usual about where the economy is likely to head in 1988 and 1989. The most likely scenario for 1988 includes continued expansion, which would allow the current upswing to last over 72 months--the longest peacetime expansion ever.

The Year in Review

The pattern of production and employment gains in 1987 was consistent with an export- and business investment-led economy, in contrast to the one led by the Government and consumer spending in 1985 and 1986. In 1982 dollars, overall exports of goods and services jumped almost 17 percent from the fourth quarter of 1986 to the fourth quarter of 1987, compared with a 1.7 percent decline in 1985 and a 3.3 percent increase in 1986 (figure 1). The probable leading factor

Figure 1
Real Exports of Goods and Services

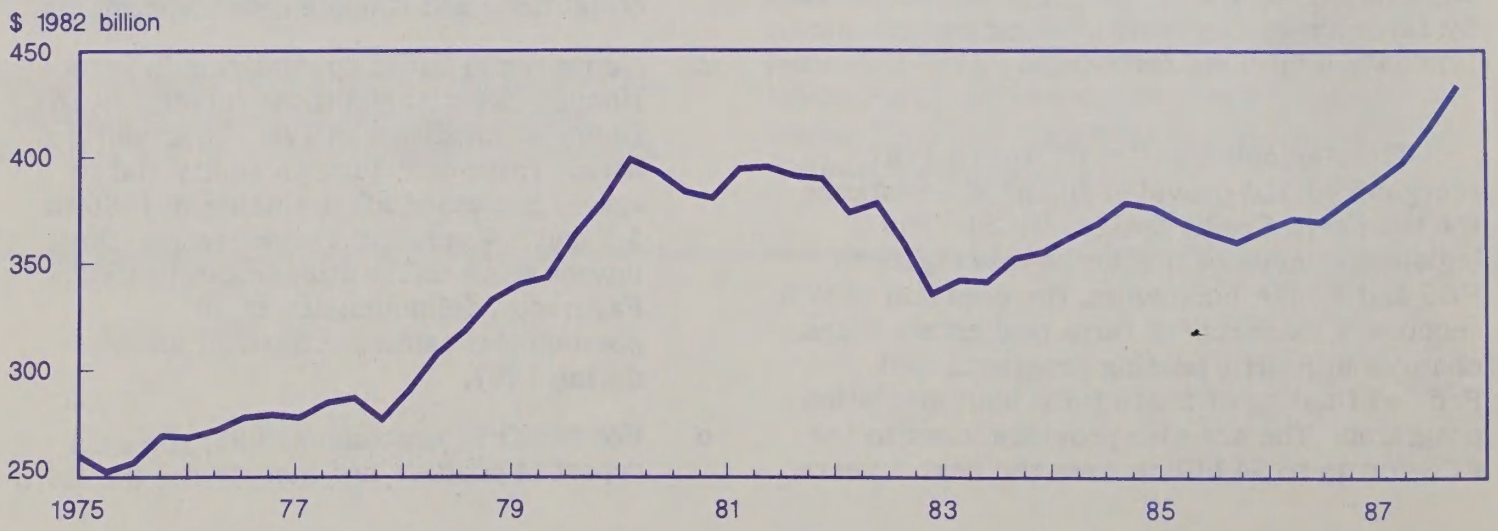
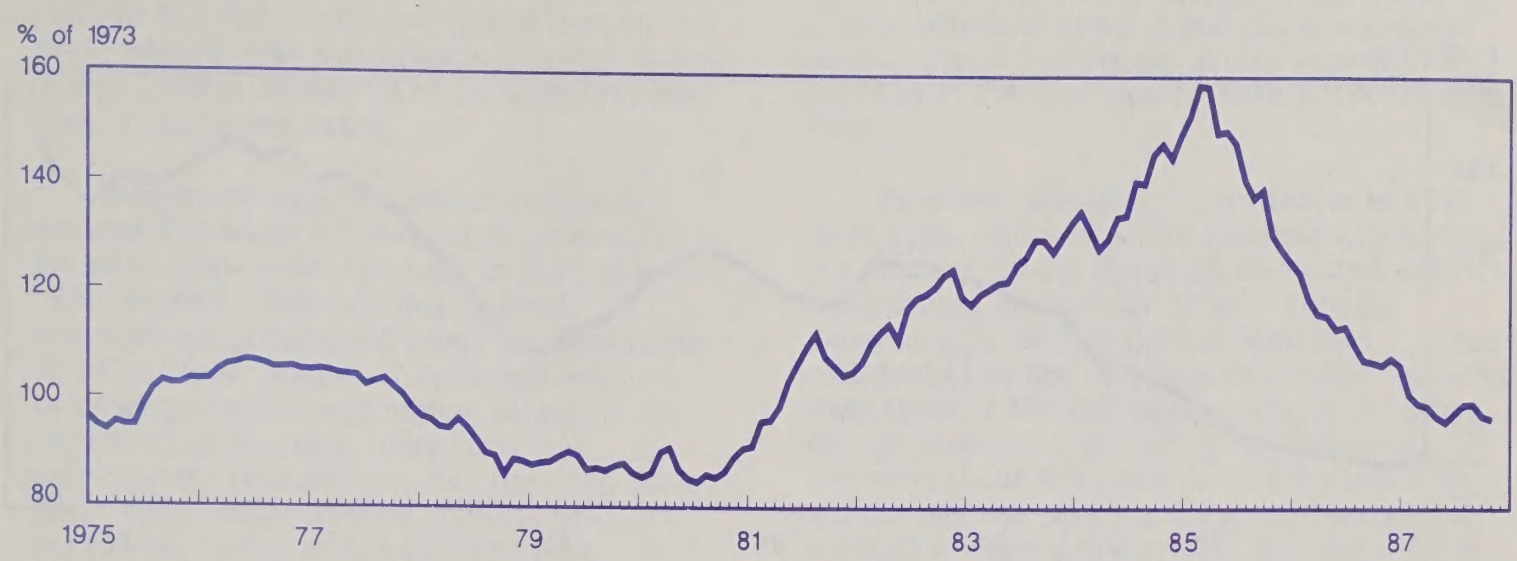


Figure 2

Federal Reserve Trade Weighted Exchange Rate



behind the export surge was the declining value of the dollar, which by the beginning of 1987 had fallen more than 30 percent from its peak in February 1985 (figure 2). The dollar, which fell more than 17 percent during the year, continued to make U.S. goods less expensive to foreigners, leading to an increase in demand. Real auto exports grew about 9 percent, while exports of consumer goods rose almost 18 percent. By the third quarter of 1987 real exports of food, feed, and beverages were 30 percent ahead of 1986, compared with virtually no increase in 1986.

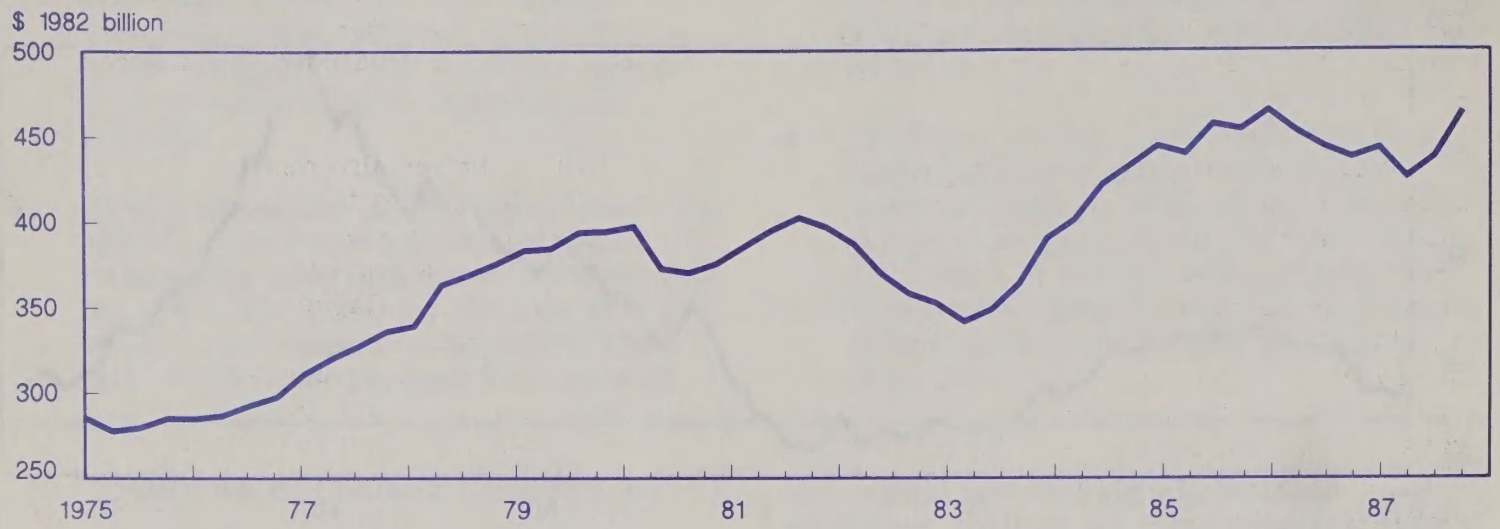
While a declining dollar should make U.S. goods more attractive to foreigners, it should also make foreign goods less attractive to U.S. consumers. The result should be a reduction in the trade deficit. However, real imports of goods and services actually rose 5 percent during 1987, below 1986's 10.4 percent but above 1985's 4 percent. In real terms, the net export deficit did improve, moving from $152 billion in the fourth quarter of 1986 to $131 billion in the fourth quarter of 1987. In nominal terms, however, the merchandise trade deficit and the current account balance proved remarkably hard to improve. The persistence of the nominal trade deficit, with its implications for the future value of the dollar and possible macroeconomic policy changes, was probably a primary cause of financial market concerns.

There are several reasons why the nominal trade deficit persists. First, import prices have risen rapidly, while import volumes have taken longer to fall in response to higher prices. Import prices rose about 10 percent during 1987, while import volume grew about 5 percent. At some point, falling import volume will overwhelm rising prices and cause the nominal trade balance to improve, but predicting when this will occur is difficult.

Second, the exchange rate, operating through import and export prices, is only one of many factors which affect international trade. Relative rates of economic growth can be even more important. For example, some analysts have suggested that when U.S. income rises by 1 percent in real terms, U.S. imports rise by about 1.5 to 2 percent, holding all other factors constant. When foreign income rises by 1 percent in real terms, however, U.S. exports rise by about 1 percent. Because the U.S. economy grew more quickly than the trading partners in 1987, real import growth remained brisk and the overall trade deficit in nominal terms failed to improve.

Developments in oil markets also hindered improvements in the merchandise trade balance. Even though crude oil prices rose steadily in the first half of the year, rebounding from their low in the third quarter of 1986, cheaper crude oil stimulated demand for imported oil, which pushed up total imports. The effect was especially pronounced in May, June and July, when refiners may have been increasing their purchases in anticipation of future price increases. Imports of petroleum and

Figure 3
Real Nonresidential Investment



petroleum-related products jumped 21 percent in real terms from the second to the third quarter.

Which of these reasons most nearly describes the persistence of the nominal trade deficit is crucial because the proper macroeconomic policy response differs among them. If relative rates of economic growth are the most important factors, policy coordination among the U.S.'s major trading partners to reduce U.S. domestic demand and stimulate domestic demand in other countries is a proper course. If special factors predominate, or if the nominal trade deficit is likely to improve in 1988 without policy help, then perhaps no policy response is necessary. As analysts watched events in 1987 for clues about which explanation was the more likely, markets which respond quickly to changing information, such as stock markets and financial markets, became more volatile.

Rising exports brought increases in domestic industrial production directly, while other industries supplying capital goods began to produce to meet increasing demand. In real terms, business capital spending rose 3.7 percent from the fourth quarter of 1986 to the fourth quarter of 1987, the fastest rate since 1984 (figure 3). In contrast, real investment spending fell more than 2 percent in 1986. Industrial production and capacity utilization surged. Compared with a 0.9-percent increase for all of 1986, overall industrial production grew more than 5 percent in 1987. Chemicals, plastics, and machine tools led the increase. Motor vehicle production grew over 6 percent, compared with a 1-percent increase in 1986. Capacity utilization rose steadily from the beginning of the year, reaching 82.2 percent for factories--a level not seen since 1980. Mining production and capacity utilization began to rise for the first time since 1983. The increase in export demand was not the only factor operating to increase investment activity. Interest rates, though rising slightly from their low point in October 1986, were still at levels not seen since 1977, and were 1.6 percentage points below their early 1986 levels.

Real consumer spending slowed from the rapid pace of 1985 and 1986, both on new homes and goods and services. Construction of new single family dwellings, which grew strongly in 1985 and 1986 with falling interest rates, slipped 0.4 percent in 1987, the first decline since 1982. Nondurable consumption spending also slipped slightly, the first time since 1982, while spending on food and beverages fell more than 1 percent. Spending on durable goods was up a scant 0.1 percent, compared with an 8-percent rise in 1986. Consumer spending on services matched 1986's 3.6-percent growth.

The slowdown in consumer spending seemed to be caused by several factors, among the most important of which was a slowdown in the rate of growth of personal income. Nominal income rose only 5.8 percent in 1987, compared with 7.1 percent in 1985 and 6.2 percent in 1986. Real income grew even more

slowly in 1987 than in 1986 because inflation rebounded. Real disposable income grew 1.2 percent in 1987, compared with 4 percent in 1986, when it was supported by falling energy prices. The components of personal income grew at different rates.

Wages and salaries, which generally account for about 60 percent of personal income, grew more strongly in 1987 than in 1986 or 1985. This was due to brisk employment growth and more workers being hired at higher wages. Consistent with increasing exports and higher levels of industrial production, manufacturing employment rose steadily for the first time since 1984, while service employment continued to rise at a 3-percent rate. Average weekly wages for production workers grew 3.8 percent in nominal terms, but slipped 1 percent in real terms. For the year, total wages and salaries grew 6.6 percent, compared with 5.8 percent in 1986.

The second largest component of personal income, government transfer payments, accounts for 14 percent of personal income and grew only 4.8 percent during the year. Interest income grew only 3.7 percent, compared with 7.2 percent growth in 1985 and 4.4 percent in 1986. Interest income growth has slowed with falling interest rates, and has contributed to the slowdown in overall personal income growth.

The personal savings rate remained at historically low levels and consumer debt levels remained high by historical standards, despite slower growth in consumer spending. The ratio of consumer installment debt to consumer income increased to over 19 percent in 1987, compared with just over 16 percent in 1980 and 16.5 percent in 1985. The savings rate, at 3.8 percent of disposable income, is low compared to the 6-percent average for 1981-85. With high debt levels and low consumer savings levels, consumer spending is unlikely to grow faster than real production over the next 18 months.

Prices rose moderately in 1987, though compared to the unusual inflation performance of 1986, inflation worsened substantially. From December 1986 to December 1987, overall consumer prices grew 4.4 percent, compared with 1.1 percent from December 1985 to December 1986. Rising energy prices, up 10.2 percent during the year, and rising import prices in general pushed up consumer prices. Food & beverage prices rose 3.5 percent in 1987, compared with 3.8 percent in 1986.

Producer prices also rose faster in 1987 than 1986, with prices for finished goods rising 2.2 percent during the year, compared with a 2.3-percent decline for 1986. Though worsening in 1987, inflation remained relatively low and, perhaps more significantly, indicators of the underlying rate of inflation did not worsen. Per-unit labor costs rose 1.6 percent, about the same as in 1985 and 1986, which suggests that the economy has not yet entered a wage-price spiral. Barring a quick run-up in volatile commodity prices, inflation is likely to remain in the 3.5 to 4.5-percent range over the next 18 months. A major factor behind inflation at this level is likely to be the lagged effects of the dollar's fall during 1987.

Financial Markets in Turmoil

Despite the relatively robust activity in production and employment, financial markets gyrated and, in the case of stock prices, collapsed. Meanwhile, the exchange value of the dollar continued to slide slowly in the early part of the year and dropped abruptly in the last half.

Many analysts suggest that interest rates are fundamentally determined by three main factors: the rate of growth of the money supply, the pace of real activity, and the expectation of future inflation. Faster money supply growth is thought to reduce interest rates initially, but if the faster growth is maintained over a longer period of time, expectations of inflation rise and force up nominal interest rates. Faster real activity is thought to force up interest rates by tightening the demand for credit relative to supply. Finally, an anticipated rise in a key commodity price forces up expected inflation and with it, nominal interest rates.

From late 1986 through the first half of 1987, interest rates rose on a slow trend. The 3-month Treasury bill rate bottomed in October 1986 at about 5.2 percent and had risen to about 5.8 percent by June. All three

Figure 4
3-Month Treasury Bill Rate

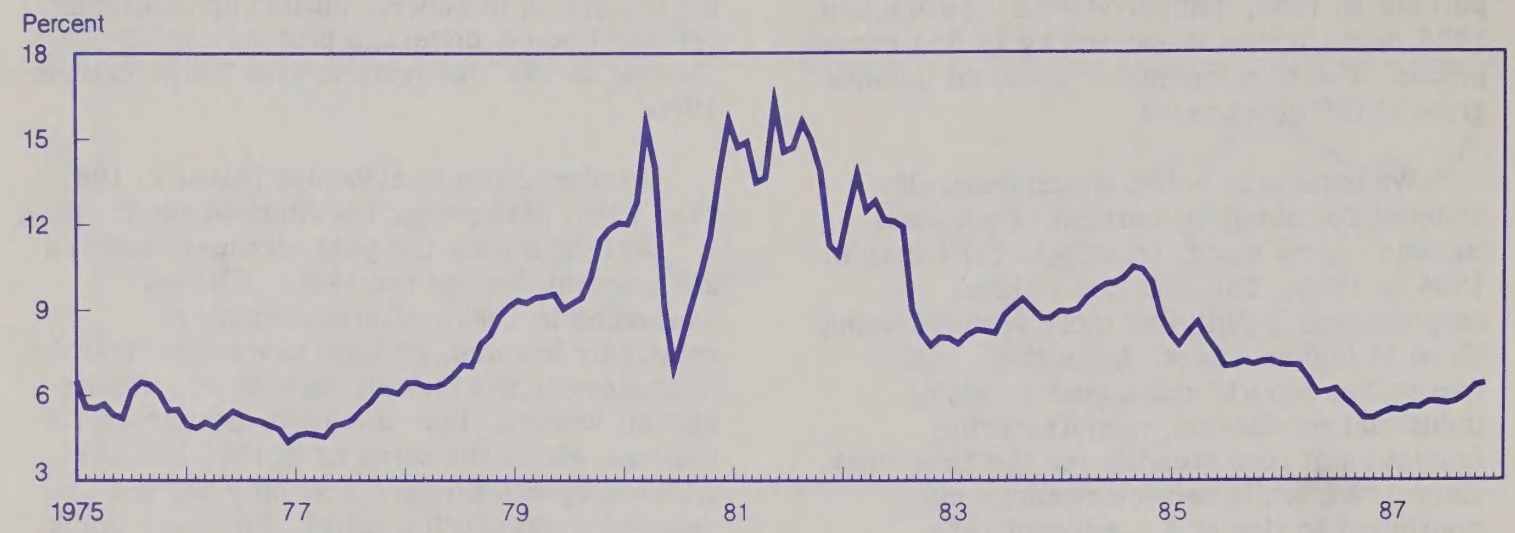
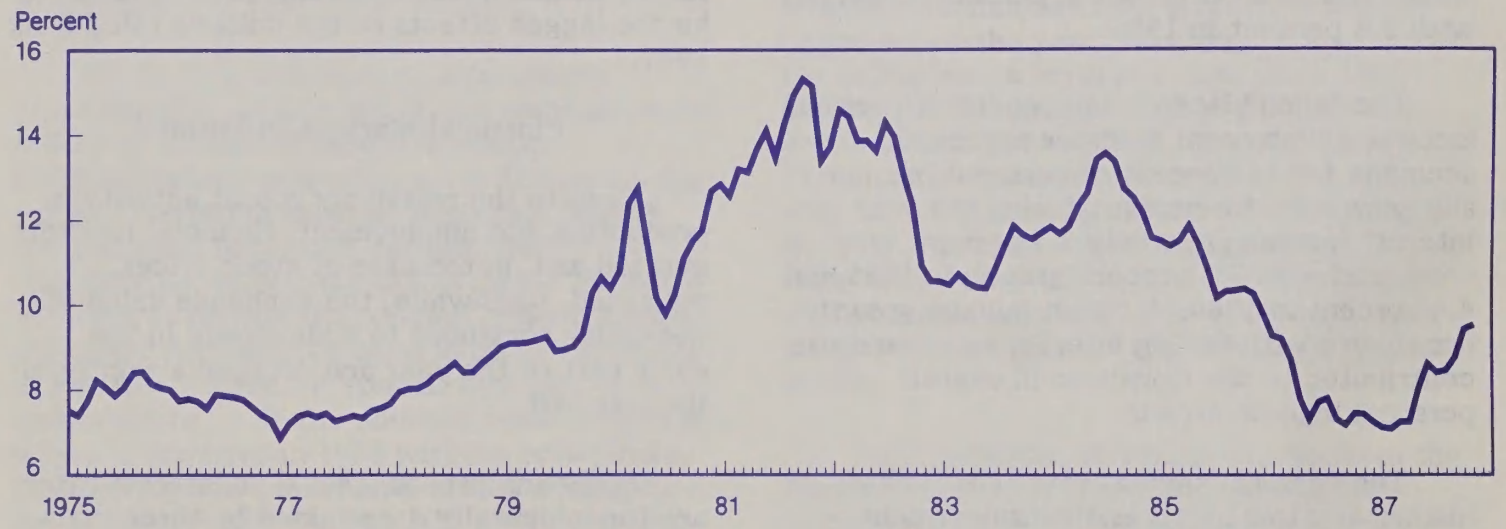


Figure 5
10-Year Treasury Bond Rate



fundamental forces pushed rates up: M2 grew at about 3.4 percent compared with 7 percent, real growth in the first half was 3.5 percent at an annual rate compared with 1.5 in the fourth quarter of 1986, and inflation measured by consumer prices averaged 4.4 percent compared with 1.1 percent in the last half of 1986. The 8.2 percent fall in the value of the dollar in the first half added to inflation expectations (figure 4).

Long term rates rose more than short rates over this period. For example, 10-year Treasury bonds moved a full percentage point, while 3-month bill rates moved up only 0.5 percentage points (figure 5). Mortgage rates started rising in 1987 from their low of 9.1 percent in March to 10.3 percent by July, which helped to slow demand for residential housing.

The trend of rising interest rates was broken by the stock market crash in October. Just prior to the crash, the rise in interest rates had begun to accelerate, with 3-month Treasury bills reaching nearly 7 percent in early October. As the Federal Reserve poured reserves into the financial system to prevent the spread of the stock market collapse to other financial markets and avoid a more general financial panic, interest rates abruptly fell by more than a full percentage point. Increases in bank prime rates, instituted in early October, were quickly reversed. Thus,

by the end of the year, interest rates were only about half a percentage point, on average, higher than they were at the beginning of the year. Using the framework discussed above, with real growth likely to be about 3 percent and inflation in the 3.5 to 4.5–percent range, the major uncertainty in interest rates in 1988 will be monetary policy. A monetary tightening could send interest rates up substantially, as it appears that the two other major factors will not lead to an easing of rates. Money supply growth in the Fed's announced range (5.5 to 8.5 for M2) is likely to be associated with interest rates remaining in their current range, although faster than anticipated real economic growth could put modest upward pressure on rates throughout 1988 and 1989.

The Stock Market Crash: Economic Effects

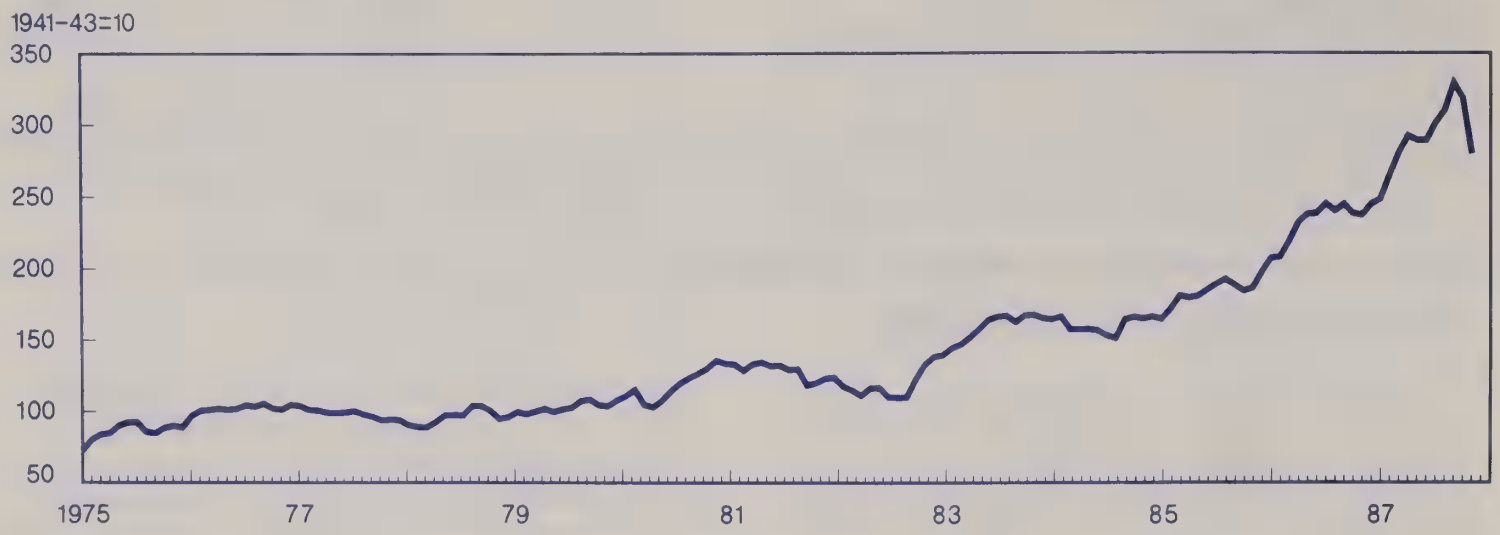
Precisely why the stock market collapsed in October will be the subject of debate for the next several decades (figure 6). The economic effects of the collapse will also be debated as analysts try to separate what would have happened to the economy without the market collapse from the effects induced by the collapse. Analysts tend to separate the economic effects into two channels. The first channel suggests that the collapse immediately reduced consumer wealth, which leads to declines in consumer spending and a slowdown in overall economic activity. The secondary effects from the consumer spending–induced slowdown include lower business investment and residential construction, which in turn tend to slow employment growth and reduce income, further reducing consumer spending. Consumer spending is estimated to fall 0.3 to 0.4 percent with every 10-percent decline in stock market wealth. With stock market wealth falling about 30 percent from the end of the third quarter to the end of the fourth quarter, consumer spending could be expected to decline about 1 to 1.2 percent, or $30 to $45 billion in real terms. Using a conventional approach of multiplying the initial drop in consumer spending by a factor of 2 to account for the secondary effects, real GNP could be expected to be about $60 to $90 billion lower over the next 18 months than would have been the case without the stock market decline. Perversely, such a fall in real activity has one benefit in the current environment: it would reduce import demand and help to improve the trade balance.

Since the stock market decline was also associated with a drop in interest rates, it is necessary to counterbalance the effects of a drop in consumer wealth by the increase in activity that could reasonably be expected by lower interest rates. One estimate suggests that a 1–percentage point decline in interest rates usually increases real GNP by $30 to 40 billion over 18 months, mostly by increasing housing construction, business investment, and consumer durable spending. Whether the offsetting wealth and interest rate effects cancel each other out depends to some extent on which effect tends to work faster. If consumers reduce purchases quickly because wealth has fallen, while business takes time to react to lower interest rates, a near–term slowdown is a likely result.

Some analysts contend that analyzing the collapse in terms of wealth and spending misses the main channel through which the stock market affects the economy. These analysts argue that the collapse signalled a collapse in consumer and business confidence. The collapse in confidence alone, they argue, is a powerful signal that spending will be reduced and that a recession is imminent. They contend that with shaken confidence in the future, business investment and durable spending usually are reduced, leading to an economic slowdown.

Whether a recession will actually occur, or whether falling interest rates will offset the wealth decline over the next 18 months is difficult to sort out on the basis of available data. Consumer spending was slowing before the collapse as the economy shifted to an export- and business investment- led expansion, so indications of slowing consumer spending need not signal a downturn. A survey of planned capital spending for 1988, taken at about the time of the crash, revealed that business planned to add more than 7 percent to capital spending in 1988, consistent with continued expansion. Surveys of consumer sentiment concerning the economy showed a

Figure 6
Standard and Poor's 500



substantial decline in confidence and buying plans in November, but December survey results showed a rebound in confidence. With so many cross-currents, not only will it be difficult to foretell where the economy will sail in the next 18 months, it will be difficult to figure out exactly which factors are responsible for setting the economy off on the particular heading it ultimately takes.

The Outlook

The features of the most likely general economic scenario over the next 18 months include:

- Real growth in the 2 to 3-percent range.
- Inflation in the 3.5 to 4.5-percent range.
- Continued growth in employment in goods-producing industries, leading to slightly faster personal income growth.
- Interest rates flat to slightly rising as real economic activity increases.

Major uncertainties afflict the most likely outlook. Over the next 18 months, a major uncertainty is how the Federal Reserve will react to changes in the exchange rate. If the exchange value of the dollar continues to decline rapidly, the Federal Reserve may decide to try to force up interest rates to increase the demand for dollars. Rising interest rates would slow business capital spending and residential building, slowing economic activity, and hurting those sectors which are most likely to be the growth engines for 1988. If the exchange value of the dollar continues to decline quickly without some support however, a likely result is an upswing in inflation, and an identical result of increased nominal interest rates. At worst, a sudden decline in the demand for dollars by foreigners would cause an abrupt drop in the exchange rate and result in a quick and large surge in inflation and interest rates. If, however, the Federal Reserve can manage to chart a middle course of dollar support and low interest rates, the probability of the most likely scenario is quite high.

Implications for the Agricultural Sector

Given the most likely scenario, agriculture is likely to have enough domestic income growth to support modest domestic growth for agricultural products over the next 18 months. Two factors point to continued growth in exports. First, given the extent to which the dollar has already fallen, even if the dollar stops declining, agriculture is in a better price competitive position now than it has been in the last 5 years. Further, the economies of some of our major agricultural markets, like Japan, have begun to accelerate after slowing initially due to a switch from an export-led expansion to a domestic demand-led expansion. A pick-up in world demand could help support further export growth.

On the cost side, oil prices appear unlikely to rise quickly over the next 18

months, and should remain in the $15 to $20-per barrel range. Meanwhile, wage inflation and price pressures on manufactured inputs should be moderate. Interest rates provide the most uncertain element in the outlook for agricultural costs, but the most likely scenario suggests that developments specific to agricultural credit markets could easily overwhelm interest rate movements brought on by expected macroeconomic changes. In short, given the most likely macroeconomic scenario, the general economic environment in which agriculture must operate in the next 18 months is likely to look much like 1987.

FARM ECONOMY

Farm Sector Outlook

Several factors are shaping the financial performance of agriculture:

- Substantially lower program commodity stocks, rising volume and value of farm exports, and improved crop prices are strengthening finances in U.S. agriculture in 1988. Higher crop receipts should offset a possible drop in livestock earnings.

- Cash income rose nearly 10 percent in 1987 to $57 billion. However, the range this year may be $50 to $55 billion. At $41 to $45 billion, 1988 cash income, adjusted for inflation, would remain well above the 1980's average.

- In 1988, direct Federal supports should decline $2 to $4 billion due to higher market prices and reductions in target prices and loan rates.

- Bidding up of farmland prices reflects the improved financial performance in U.S. agriculture, reversing the 5-year downslide.

- Farm equity in 1982 dollars is estimated to have risen $17 billion in 1987 to $480-495 billion in 1988. Farm equity had fallen 34 percent between 1981 and 1986.

- Current returns to farm assets probably exceeded 5 percent in 1987 and over 4 percent to equity. Because of land value stabilization, the total return to equity from income and real capital gains is projected to become positive for the first time since 1980.

- About 10 percent of farms had both high debt and insufficient earnings to meet financial obligations at the beginning of 1987. The situation is improving as the amount of debt owed by farms classified as vulnerable has fallen.

The farm financial outlook has improved (Appendix table 1). In 1987, farm income experienced a fourth consecutive record level and there were sharply higher agricultural exports, firming farmland values, and declining farm debt, crop stockpiles, and farm production costs. The Pacific States had the largest increase in net cash income (44%), followed by the Southeast and Southern Plains (23%), the Lake States (13%), Delta (11%), Mountain (10%), Northeast (9%), Northern Plains (8%), and Appalachia (4%). Net cash income rose nearly 10 percent last year but may decline to the $50 to $55 billion range in 1988. However, returns to assets could be 4-6 percent in 1988 with 3-5 percent returns to equity, both higher than most years of the 1970's.

However, optimism must be tempered. Pockets of financial stress are expected to continue, especially among highly leveraged operations. Near-record acreage idled by Federal farm programs and costly export subsidies will contribute to large budget outlays for agriculture. This support remains important to maintaining high levels of net income and cash flow and to stabilizing farm land values. Also, after 3 straight years of decline, production costs are forecast to rise roughly 1 percent in 1988.

Farm Income

Net cash income likely established a new high of $57 billion in 1987 (table 1). However, this year's forecast is down roughly 10 percent, to the $50 to $55 billion range, but still the second highest on record. Adjusted for inflation, 1987 net cash income at $49 billion remained substantially higher than the average of the preceding decade and the most since 1975. Net farm income registered an 12-year high of $38 billion in 1982 dollars. This income measure, which reflects net

Table 1.--Farm sector income

Year	Current income			Deflated income ($1982) 1/		
	Net cash	Net Farm	Off-farm	Net cash	Net farm	Off-farm
	Billion dollars			Billion dollars		
1975-79	30.8	23.6	28.0	45.4	34.9	41.2
1980-84	36.2	22.2	36.4	36.9	22.6	37.6
1985	47.3	32.3	42.5	2.5	29.1	37.9
1986	52.0	37.5	44.7	45.6	32.9	39.2
1987F	57	45	48	49	38	42
1988F	50-55	40-45	48-50	41-45	34-38	41-44

F=Forecast. 1/ Deflated by the GNP implicit price deflator, 1982=100.

earnings generated in a given year, incorporates the value of inventory adjustments. After a 1985 to 1987 annual average $3 billion draw down in inventories, 1988 inventory changes are forecast to possibly turn positive (from 0-$1 billion). This would represent the first inventory-based addition to net farm income since 1984 in the aftermath of 1983's combined drought and PIK influences (Appendix tables 2 and 3).

In current dollars, net farm income reached $45 billion last year, a major recovery from the depressed levels of the early-and mid-1980's. Net cash income, which reflects income available to pay debt service obligations and family living expenses, has also made major gains from early in this decade (Appendix table 2).

Crop Receipts Projected to Turn Around

Although both net farm and net cash incomes rose over 20 percent in the 1985 to 1987 period, these gains were not associated with larger earnings from the sale of crops. Total cash receipts achieved a record $144.2 billion in 1985, then fell 7-percent to an estimated $134 billion in 1987. While livestock receipts rose an estimated $4 billion, crop receipts fell $14 to $15 billion during this period. Most of this loss was concertrated in food and feed grain marketings. From 1985 to 1987, gross earnings for these two commodity groups fell 45 to 55 percent (Appendix table 4). The impacts were especially heavy in the Midwest. An estimated 7-percent drop in net cash income in the Corn Belt was primarily due to an 8-percent decrease in cash receipts and a 3-percent increase in cash expenses.

For 1988, there is an improved outlook for virtually all major crops. Higher prices due to tighter supplies, notably for grains and cotton, are expected to boost crop cash receipts for the first time since 1985. Total crop receipts, after declining nearly 10 percent in 1987 to a 9-year low, should increase 6 percent to the $62 to $65 billion range this year. Gains are likely almost across the board, with grains and cotton receiving the largest increments.

Higher grain prices will translate into lower margins for livestock operations. A decline in livestock receipts would end a 2-year pattern where rising livestock earnings compensated for falling crop receipts.

Hog prices may decline in major markets because of recent production expansions. Nevertheless, total red meat production is expected to stay around 39 billion pounds in 1988. With continued growth in pork output offsetting much of a 4 to 6-percent drop in beef production, livestock cash receipts are forecasted to be in the $72 to $74 billion range.

Large Federal Payments and Production Expense Relief

Direct Federal payments have compensated for much of the erosion in crop cash receipts. For example, crop receipts of cash grain farmers fell from $25 billion in 1986 to $19 billion in 1987, a drop of 23 percent. However, their net cash income

declined only 12 percent as direct Government payments rose nearly $3.1 billion in calendar 1987 to a total of $10 billion (Appendix table 5).

Total direct Federal payments rose from $7.7 billion in 1985 to $11.8 billion in 1986 and $17 billion in 1987. They are expected to range between $13 to $15 billion in 1988. These supports are dominated by deficiency payments, generic certificates, and diversion payments. Also included are payments for reserve storage, the dairy herd buy-out, conservation reserve, disaster, and wool programs. Most of this recent upsurge is attributable to payments in generic certificates, unfavorable prices for program commodities, and high program participation rates. In 1986 and 1987, over $10.6 billion worth of generic certificates were issued to move stocks from Government storage while offering producers and commodity handlers novel and highly attractive marketing opportunities. Most of the projected $2 to $4 billion savings in 1988 Federal farm program payments should be realized through smaller deficiency payments and fewer generic certificates.

Another factor driving farm income to record levels in each of the last 3 years was the steep decline in production expenses (table 2 and Appendix table 6). After peaking at just less than $143 billion in 1984, total production expenses tumbled to an estimated $119 billion last year. This 17-percent decline was keyed by lower feed costs, reduced interest charges, lower fuel and fertilizer prices, and sharp reductions in planted acreage. Although set-aside acres do not come at zero-cost to producers, the idling of 69 million acres represents yet another form of Federal involvement in support of the farm sector.

Table 2.--Farm production expenses

Item	1985	1986	1987F	1988F
	Percent change from a year earlier			
Farm origin items	-7.3	-5.3	4	3
Manufactured inputs	-3.3	-18.3	-6	3
Interest charges	-11.4	-9.4	-14	-5
Repairs, labor, machine hire	0.1	-1.6	3	3
Other items 1/	-7.0	-9.3	-5	-1
Total expenses	-6.3	-8.7	-3	0-2
Cash expenses	-5.8	-8.7	-3	1-3

F=Forecast. 1/ Includes depreciation, taxes, net rent, and others.

Table 3.--Balance sheet 1/

Year	Current dollars		Deflated dollars ($1982) 2/		
	Assets	Liabilities	Assets	Liabilities	Equity
	Billion dollars		Billion dollars		
1975-79	691.8	116.8	1005.0	169.7	835.3
1980-84	959.7	192.8	973.1	195.5	777.6
1985	750.1	175.2	674.5	157.6	517.0
1986	691.6	155.0	606.1	135.8	470.3
1987F	712	141	606	120	486
1988F	705-720	128-138	580-595	105-115	470-480

F=Forecast. 1/ Excludes operator households and CCC activity.
2/ Deflated by the GNP implicit price deflator, 1982=100.

Total production expenses are expected to be in the $119 to $121-range in 1988, the net result of lower interest and overhead expenses and slightly higher expenditures on inputs of farm origin, manufactured inputs, and repair and labor charges. Between 1984 and 1987, cash expenses fell at a slightly lower rate because they did not include depreciation. In 1988, these costs are forecast to increase from $99 billion to the $99 to $101 billion range (Appendix table 6).

Careful production and expenditure decisions, continued debt paydown, and further reductions in stock levels will significantly affect the sector's financial health. The situation is also highly dependent upon Government supports and macroeconomic conditions. The Omnibus Budget Reconciliation Act of 1987 cuts agricultural support expenditures by $2.5 billion from the previous estimate in fiscal years 1988 and 1989. This Act includes lower target prices and loan rates, a dairy assessment, a possible 50 cent per hundredweight cut in the dairy support price, and reduced support for non-target price commodities. If earnings remain high and debt retirement continues, prospects of a sustainable recovery should improve.

Farm Sector Balance Sheet Improves

The most important signal of improved financial performance in U.S. agriculture has been the bidding up of farmland prices, reversing the 5-year slide. This reversal from the annual average $76.5 billion decline in real estate values during 1984-86 reflects higher expected returns from current income. These land value gains strengthen the sector's debt carrying capacity by stabilizing the value of real estate loan collateral (Appendix table 7).

The balance sheet of agriculture is expected to improve in 1988 as farm asset values increase slightly while debt continues to decline (table 3).

Asset Growth

Farm asset growth in 1987 was primarily generated by an estimated 15-25-billion increase in real estate value. However, this uptrend is likely to slacken in 1988. Considerable variation underlies the 3-5 percent growth in land values in 1987: sharp increases in the Corn Belt and Northern Plains, which in parts of Iowa, Minnesota and Illinois may reach 10-20 percent for Class A farm land; 5-10-percent increases in Mid and North Atlantic States experiencing urban growth; moderate 2-4-percent gains in the Mountain States and West Coast; but declines of about 5 percent in parts of the oil-depressed Southern Plains.

Nonreal estate assets are projected to decline 1-2 percent in 1988 due largely to a $3-billion decline in the inventory of farm machinery and equipment. Increases in inventories of hogs and poultry will offset lower prices, permitting the value of livestock and poultry inventories to remain stable. The value of crop inventories is also projected to be flat in 1988, as lower ending stocks offset a 12-15-percent price increase for corn and lesser increases for most other major crops. Despite large paydowns in farm debt, financial assets held by farmers are expected to increase by nearly $1 billion in 1988, the same as for 1987.

Stable land values are essential for long-run farm financial progress. The nearly $256-billion decline in land values between 1981-86, especially in the Corn Belt and Northern Plains States, eroded farmers' equity base and credit reserves. As land values declined, more and more borrowers were unable to pay existing obligations without restructuring their debts or selling their assets. Even some farms with positive cash flows were considered poor credit risks because of low or negative equity positions. An improved land market in the remainder of the 1980's represents an important indicator that the agricultural economy has "turned the corner."

Continuing Debt Decline

This will likely be the fourth consecutive year of large decreases in farm debt. The total debt reduction of nearly $60 billion between 1984-88 illustrates the sector's ability to adjust to current business conditions. The $6-7 billion annual savings in interest associated with debt reduction since 1984 has become critically important to continued income strength. Real estate debt of $75-$81 billion in 1988 will be 25 percent

lower than in 1984; nonreal estate debt of $53–$57 billion will be nearly 37 percent less.

Equity Stabilizing

Reflecting the 31-percent drop in asset values between the 1981 peak and 1986 and the 15-percent decline in debt levels, equity values fell 34 percent from $814.4 billion to $536.6 billion. In real terms ($1982), farm equity fell 46 percent between 1981 and 1986. However, equity ($1982) is estimated to have risen 4 percent to $487 billion in 1987 and is expected to be $480-$495 billion in 1988. This firming of the equity base and credit reserves will help borrowers pay debts and finance new investments.

Farm Financial Ratios Improving

A variety of ratios help assess the liquidity, solvency, profitability, and financial efficiency of U.S. farms (Appendix table 8). A closely-monitored solvency indicator -- the debt/asset ratio -- is projected at 17 to 20 percent in 1988, improved from the 22-23 percent levels of 1984-86. Likewise, all profitablility ratios were up in 1987 from 1986 and should remain relatively high in 1988. The net farm to-gross cash farm income ratio indicates farmers are better able to repay their principal obligations. The upward trends in the times interest earned ratio also suggest improvement in the sector. The times interest earned ratio focuses on the farmers' ability to pay annual interest on farm debt out of operating profit. Corresponding to a lower debt burden, this ratio has increased from 2.0-3.0 in 1980-84 to 4.0-5.0 in 1987-88.

Farm Sector Returns and Cash Flow Rising

Land value stabilization allowed the total return to equity from income and real capital gains to became positive in 1987 for the first time since 1980. The estimated 4.4-percent return to equity in 1987 nearly equalled the average 4.9 percent during 1959-70.

The projected 3-5-percent return to equity from current income in 1988 would exceed all but 3 years of the 1970-86 period. During 1971-79, returns to equity ranged from 3-20 percent largely due to enormous increases in land values rather than continued high current income. Thus, the projected total return of 0-2 percent in 1988 reflects the estimated stable prices for land (table 4).

Returns to farm assets before interest payments fluctuated widely in the 1970's, but their levels have not changed much since the early 1980's, and have remained above the levels of the 1960's. However, residual income to equity has fluctuated considerably in the 1980's (table 5).

These changes in the sector's income and balance sheet are not only altering the returns earned by assets and equity, but also farmers' ability to service debt out of current earnings. Farms with large debt service commitments have been most affected by the stagnation in constant dollar cash income growth. Cash flow after interest payments declined from $44 billion in 1980 to $29 billion during 1984-86. Cash flow after interest in 1987 and 1988 is projected to rise above this

Table 4.--Rates of return to assets and equity 1/

Year	Returns to assets			Returns to equity		
	Income	Real capital gains	Total	Income	Real capital gains	Total
	Percent					
1975-79	2.5	8.1	10.6	1.4	8.1	9.5
1980-84	2.0	-5.2	-3.2	-.1	-5.1	-5.2
1985-86	4.4	-10.4	-6.0	2.8	-10.4	-7.6
1987F	5.4	0.0	5.5	4.4	0.0	4.4
1988F	4-6	(-2)-(-4)	1-3	3-5	(-2)-(-4)	0-2

F=Forecast. 1/ Excludes operator households. Totals may not add due to rounding. Returns to assets and returns to equity are calculated using the average of the current and previous year's assets and equity, respectively.

average as gross cash expenses fall and real interest rates remain stable (table 6).

Reflecting the downturn in farm debt which began in 1984 and some improvement in cash flows and returns to assets, debt fell from 5.9 times cash flow to 17.7 times returns to assets in 1983 to 5.0 times cash flow and 4.3 times returns to assets in 1986. These ratios are expected to decline further in 1987 and 1988. However, since cash flows and returns after debt service are relatively low, even in comparison to preboom early 1970's, farmers with above-average debt levels are still experiencing difficulty servicing their debt from current earnings (figure 7).

Farm Financial Stress Lessening

Widespread farm financial stress resulted from less income in the early 1980's and a nearly $280 billion loss in real estate (current dollars) in the mid 1980's. However, the situation has gradually improved during the past three years. The percentage of farms which had both high debt and insufficient earnings to meet financial obligations has fallen slightly to about 10 percent. Also, the percentage of debt owed by farms classified as vulnerable has fallen from about 30 percent at the beginning of 1985 to about 25 percent. Finally, the proportion of farms classified in a favorable position due to positive earnings and relatively low debt has increased (table 7).

The largest percentage of farms in the weakest financial position were those producing general crops or cash grains. One-third of all commercial farms were cash grain operations, of which 43 percent were in a vulnerable position, while 29.5 percent were in a favorable position. Half of all commercial farms were livestock and dairy operations, of which 42 percent were classified as vulnerable and 53 percent as favorable.

Table 5.--Returns to assets and equity

Item	1980	1981	1982	1983	1984	1985	1986	1987F	1988F
	Billion 1982 dollars								
Gross farm income	164	162	185	165	162	149	140	139	126-140
Returns to operators	42	26	30	15	24	25	29	36	30-34
Residual income to farm assets	32	17	25	17	26	27	32	33	28-30
Residual income to equity	23	6	10	-3	7	11	18	21	16-18

F=Forecast.

Table 6.--Flow of funds to farm sector, selected years 1/

Item	1980	1981	1982	1983	1984	1985	1986	1987F	1988F
	Billion 1982 dollars								
Gross cash income	167	155	151	145	144	141	133	130	116-128
Plus: Change in loans outstanding	18	16	7	3	-2	-14	-18	-12	-7 - -9
Plus: Net rent to nonoperator landlords	7	6	6	5	8	7	6	6	6 - 8
Plus: Net change in farmers' currency and demand deposits	0	0	0	0	0	1	1	0	0
Minus: Gross cash expenses (excluding interest)	110	100	92	89	89	82	73	67	66-70
Minus: Capital expenditures	21	18	13	12	12	9	8	8	7-9
Equals: Cash flow before interest payments	62	61	59	51	50	44	41	50	44-48
Less: Interest payments	18	20	21	20	19	16	14	12	10-12
Equals: Cash flow after interest payments	44	40	38	32	31	28	27	38	34-36

F=Forecast. 1/ Numbers may not add due to rounding.

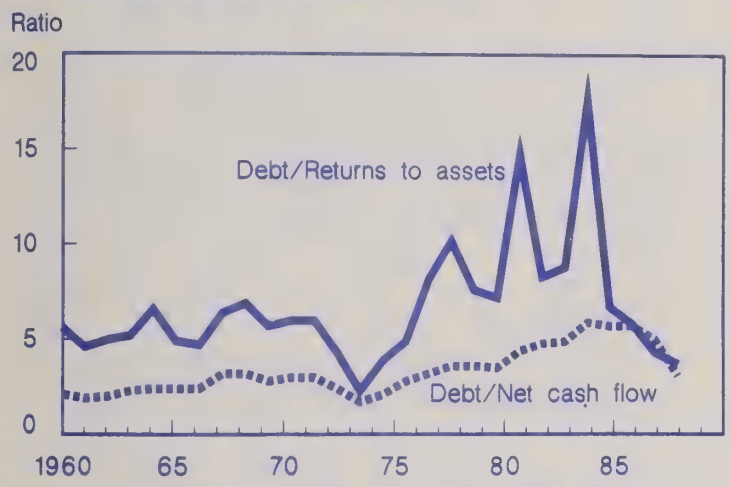
Table 7.--Distribution of farms and debt by financial health category

Income measure	Financial position 1/							
	Favorable		Marginal income		Marginal solvency		Vulnerable	
	Farms	Debt	Farms	Debt	Farms	Debt	Farms	Debt
	Percent							
Net cash household income								
1986 FCRS	41.0	21.6	37.0	11.3	11.7	42.0	9.9	25.1
1985 FCRS	40.4	21.0	38.3	12.7	11.3	39.9	10.0	26.4
1984 FCRS	40.8	23.2	40.1	14.7	9.2	32.2	9.9	30.0

1/ A farm or household has favorable income status if it has positive income. A farm has favorable solvency if its debt/asset ratio is less than 0.40. Farms with both a positive income situation and a low debt/asset ratio are classified in a favorable financial position. Those in the marginal income category have low debt but negative income. The marginal solvency category includes farms with high debt and positive income. Vulnerable farms have both high debt and insufficient earnings to meet financial obligations.

Figure 7

Farm Debt Compared with Returns to Assets and Net Cash Flow



Debt excludes operator households. Net cash flow equals gross cash income minus total operating expenses.

Financial health improved in the Midwest in 1987 and early 1988 as strong livestock prices and high yields of corn and soybeans offset declining crop prices. Prospects are also excellent for recovery in most Southern States due to improved rice and cotton profits and higher cattle prices.

AGRICULTURAL LENDERS

The overall financial situation of farm lenders improved in 1987, but significant challenges remain. Accelerated debt repayment, moderating interest rates, and high farm earnings have contributed substantially to the financial stabilization now occurring in the farm sector. Relatively high levels of commodity price supports under the 1985 farm legislation have underpinned the recent financial improvement. The firming of farmland values has halted the erosion in collateral values backing a large share of farm indebtedness.

Total farm debt has declined sharply. A factor in this rapid decline was the liquidation and restructuring of troubled loans by lenders. Another contribution came from farmers who were not financially stressed but who had liquid assets, such as bank deposits or farm income, to pay down or eliminate their debts. Farmers also have been reducing the debt used to finance operating expenses. This is due to lower input use and input prices, cutbacks in crop acreage because of requirements by Government programs, and advanced deficiency payments. Cost-consciousness and low debt are now prevalent themes among farmers who have responded to the relatively high cost of borrowing and to the financial stress of the decade. The remaining farm debt now appears to be held by farmers who are in a relatively stronger financial condition than in the late 1970's or early 1980's.

Generally, commercial farm lenders have experienced declines in delinquent loans and charge-offs. The improvement in farm loan portfolios is most marked for nonreal estate loans. The bulk of these loans are for short-term production purposes and problems can be dealt with relatively quickly. Considerable problems remain among some of the longer-term real estate mortgage loan portfolios held by farm lenders. Overall, the proportion of nonperforming agricultural loans is down, but it is still high by historical standards.

All major institutional farm lenders continue to report early loan repayment, relatively weak loan demand, and considerable competition for existing good quality farm loan business. In short, all lenders except the Farmers Home Administration (FmHA) continue to experience reduced financial stress with their farm loan portfolios. Farm loan problems remain significant. But apart from the FmHA, the current debt restructuring and liquidation probably will result in the resolution of most of the farm sector's problem debt within the next few years.

Stabilizing land and commodity prices are providing farm lenders the opportunity to restructure loans and liquidate acquired property. After falling 33 percent since 1982, land values likely rose 3 to 5 percent in 1987, and are expected to rise 1 to 2 percent in 1988. Lenders can use the opportunity to resolve many of their farm loan problems. However, if land and commodity prices do not stabilize, lenders likely face a new round of loan losses as currently solvent or recovering farmers find their balance sheets and earning statements eroding under new financial pressures.

Farm income is expected to decline slightly in 1988, but still be above levels of the early 1980's. Total farm sector debt will continue declining in 1988, but there is a limit on how much further it can fall. The large debt restructuring to date has been achieved at great sacrifice to farmers who have paid down debt and lenders who have restructured and written off debt. Thus, further interest savings from debt reduction may be nearing an end. The bottom line for the farm sector remains a widespread concern when it is highly dependent upon Government action and support. For lenders, the farm sector's increased stability leads to an outlook of guarded optimism, but the situation remains somewhat fragile.

The Agricultural Credit Act of 1987 was signed into law in a continuing effort to ameliorate farm financial stress. The act is perhaps the most far-reaching agricultural credit legislation since the 1930's and will likely shape agricultural credit for many years to come. The cornerstone of this sweeping legislation is a reorganization and financial assistance package for the troubled Farm Credit System (FCS), but there are other important provisions. These include numerous borrowers' rights afforded to FCS and FmHA borrowers, the creation of two secondary markets for farm real estate loans, changes in FmHA lending programs, and Federal funding of State farm loan mediation programs. The ultimate impact of these provisions on

Table 8.--Distribution of farm debt, excluding operator households, by lender, December 31, 1987 1/

Lenders	Type of debt: Real estate	Type of debt: Nonreal estate	Total
	Percent of total		
Commercial banks	9.3	18.1	27.3
Farm Credit System	21.9	6.5	28.4
Federal Land Banks	21.9	---	21.9
Production Credit Associations	---	6.3	6.3
Federal Intermediate Credit Banks 2/	---	0.2	0.2
Farmers Home Administration	6.5	9.5	15.9
Life insurance companies	6.7	---	6.7
Individuals and others 3/	14.3	7.3	21.6
Commodity Credit Corporation	4/	---	4/
Total	58.6	41.4	100.0

1/ Preliminary. Due to rounding some subcategories may not add to totals. 2/ Financial institutions other than PCA's that obtain funds from the FICB's. 3/ Includes Small Business Administration farm loans. 4/ $60 million or 0.04 percent of total debt. This includes CCC storage and drying facilities loans, but excludes CCC crop loans.

agricultural credit is uncertain, but it is apparent that the public sector's role is expanding.

This section discusses current lender loan portfolios, recent developments in agricultural lending, recent credit policy developments, and the current agricultural lender outlook.

Current Lender Loan Portfolios

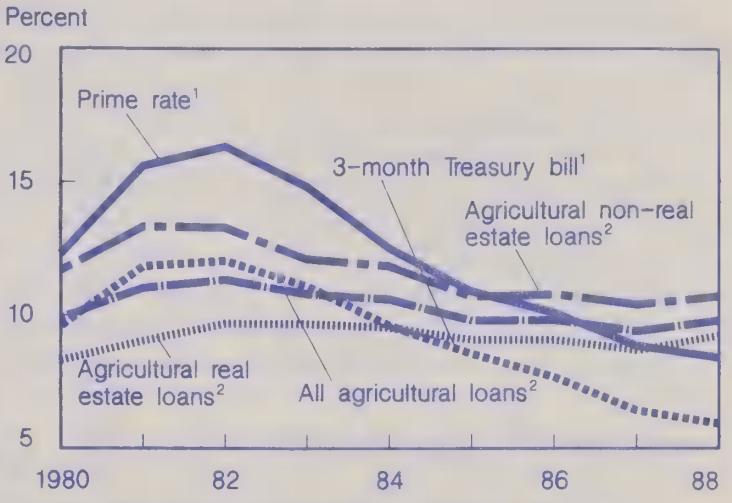
The distribution of the farm sector/s $140.7 billion debt outstanding, excluding operator households, as of December 31, 1987, is summarized in table 8. Individuals and others are estimated to hold 21.6 percent of the total. The various parts of the FCS together account for 28.4 percent of all farm loans, making the FCS the leading farm lender, followed by commercial banks with 27.3 percent.

The $140.7 billion in total farm debt, excluding operator households, held by farmers on December 31, 1987, represents a decline of a $52 billion, or 27 percent from the peak year of 1983. Real estate debt declined from its peak year by $22.3 billion, or 21.5 percent, and nonreal estate debt decreased $29.7 billion, or 33.8 percent. (See appendix tables 9 and 10.) Within the real estate debt portfolio, loans held by Federal Land Banks (FLB's) declined 32 percent from their peak in 1984. Life insurance company loans declined 21.9 percent from the high in 1981.

Commercial bank real estate loans increased 72 percent since 1981; 31.9 percent since 1984. However, some of the increase did not result from new business, but from increased loan collateralization requirements in the wake of the farm financial crisis. The collateralization requirement shifts loans from the nonreal estate to real estate loan category. The FmHA real estate loan total peaked in 1985, but has declined only 4.9 percent since. It increased 12.2 percent 1981–87. Despite the above changes, FLB's remain the dominate real estate lender with 37.3 percent of the portfolio in 1987, but down from a peak of 43.7 percent in 1984.

A number of important changes have occurred in the nonreal estate portfolios. Production Credit Association (PCA) loans declined 56.4 percent from their 1981 peak and Federal Intermediate Credit Bank (FICB)

Figure 8
Agricultural Interest Rates



1/ 3-year moving average. 2/ Average rate on outstanding debt.

loans decreased 72.9 percent from their 1984 high. Commercial bank loans decreased 32.4 percent from their top figure in 1984. In 1987, FmHA loans increased 4.8 percent from 1981, but declined 9.5 percent from the 1985 peak.

The most interesting trends in the nonreal estate portfolio are for commercial banks and PCA's which experienced substantial paydowns, beginning in 1983 for PCA's and in 1985 for banks. (See appendix table 10.) Through the end of 1987, the PCA paydown totaled $11.5 billion and that of commercial banks $12.2 billion. However, the PCA percentage decline was more dramatic because it came from a smaller initial base. In 1987, the PCA's and commercial banks held 15.3 and 43.7 percent, respectively, of total nonreal estate debt. The comparable figures in 1981 were 24.4 and 37.3 percent. Thus, in the shrinking farm debt market of the 1980's commercial banks have been increasing their market share.

The overall paydown in the farm loan portfolio appears to have been driven more by demand than supply. Farmers have decided to hold less debt for a variety of reasons. Not only did total debt peak in 1983, but interest rates peaked even before then, making debt servicing a costly item. Moreover, as other interest rates declined in the 1980's, farm sector interest rates tended to come down at a slower rate (figure 8). (See appendix tables 11 and 12.)

Information on delinquent farm loans by lender during 1980–87 is shown in table 9.

Table 9.--Lender delinquent farm loans, 1980-87

Lender	Yearend 1/						Mid-year 1986 2/	Year-end 1986 1/	Mid-year 1987 2/
	1980	1981	1982	1983	1984	1985			
	Billion dollars								
Commercial banks 3/ 4/	NA	NA	.9	1.5	2.1	2.6	3.5	2.2	2.5
Farm Credit System 5/	.3	.4	.7	1.3	2.1	5.3	7.6	7.1	6.5
Life insurance companies 3/ 6/	.3	.5	.8	1.0	1.2	1.7	2.2	1.8	1.8
Farmers Home Administration 7/	3.6	5.8	9.5	11.0	12.1	11.9	13.5	12.0	12.9
	Percentage of outstanding loans								
Commercial banks 3/ 4/	NA	NA	2.5	3.8	5.2	7.3	10.3	7.0	8.1
Farm Credit System 5/	.5	.5	1.1	1.8	3.3	8.7	12.4	14.4	11.9
Life insurance companies 3/ 6/	2.0	3.7	6.4	8.3	9.6	15.1	19.9	17.0	18.0
Farmers Home Administration 7/	18.2	24.1	37.9	43.9	45.9	41.5	48.6	42.9	49.0

NA= Not available. 1/ End of fiscal year (Sept. 30) for the Farmers Home Administration (FmHA) and end of the calendar year (Dec. 31) for the other lenders. 2/ June 30. 3/ Delinquencies were reported by institutions holding most of the farm loans in this lender group. Data shown are estimates obtained by assuming that the remaining institutions in the group experienced the same delinquency rate. 4/ Farm nonreal estate loans past due 90 days or more or in nonaccrual status, from the reports of condition submitted by insured commercial banks. 5/ Data shown are nonaccrual loans. The Farm Credit System also reports "other high-risk loans," but not all such loans are delinquent. Data are from Summary Report of Condition and Performance of the Farm Credit System, Farm Credit Corporation of America, for quarters ending June 30, 1986 and June 30, 1987; Farm Credit System Annual Information Statement--1986, Federal Farm Credit Banks Funding Corporation, March 6, 1987; and, for years before 1985, from Farm Credit Administration Financial Forecast of the Farm Credit System, Appendix B, Farm Credit Administration, May 1987. 6/ Loans with interest in arrears more than 90 days. Data are from the American Council of Life Insurance, Investment Bulletin, various issues. 7/ Delinquent loans are defined as $10 or more and past due 15 days or more. Data shown are for September 30; thus, they avoid the yearend seasonal peak in very short-term delinquencies and so are more comparable with those shown for other lenders. The FmHA data reflect the total outstanding amount of the loans that are delinquent (as do the data shown for other lenders), rather than the smaller amount of delinquent payments that is often reported as FmHA "delinquencies." Data are from Farmers Home Administration, 616 report, various issues.

Source: Year end data adopted from Emanuel Melichar, "Turning the Corner on Troubled Farm Debt," Federal Reserve Bulletin, Vol. 73, No. 7, July 1987, p. 529. Mid-year data obtained by ERS from the same sources as those cited by Melichar.

Table 10.--Lender farm loan losses (net charge-offs), 1982-87

Year	Commercial banks 1/	Farm Credit System 2/				Farmers Home Administration 3/	Exhibit: Life insurance company foreclosures 4/
		FLB/FLBA	FICB/PCA	Bank for Cooperatives	FCS		
	Million dollars (Percent of loans outstanding at end of period) 5/						
1982	NA	2 6/	1 6/	11 (0.1)	13 6/	24 (0.1)	170 (1.3)
1983	NA	9 6/	2 6/	(3) 6/	8 6/	36 (0.1)	247 (1.9)
1984	900 (2.2)	110 (0.2)	308 (1.6)	10 (0.1)	428 (0.5)	54 (0.2)	289 (2.5)
1985	1,300 (3.7)	576 (1.2)	514 (3.4)	15 (0.2)	1,105 (1.6)	146 (0.5)	530 (4.8)
1986	1,200 (4.0)	1,019 (2.6)	304 (2.6)	(2) 6/	1,321 (2.3)	268 (1.0)	827 (7.9)
1987, Quarter 1	173 (0.6)	178 (0.5)	14 (0.1)	7/ 6/	192 (0.3)	NA	NA
1987, Quarter 2	133 (0.4)	149 (0.4)	18 (0.2)	7/ 6/	167 (0.3)	179 (0.7)	343 (3.5)
1987, Quarter 3	NA	72 (0.2)	8/ 6/	7/ 6/	72 (0.1)	NA	NA

NA= Not available. 1/ Calendar year data for nonreal estate loans. 2/ Calendar year data. 3/ Fiscal year data beginning October 1. Includes data on the four major farm loan programs (farm ownership, farm operating, emergency disaster, economic emergency), but excludes gain or loss on sale of acquired property or chattels. 4/ Loan charge-off data are not available for life insurance companies. 5/ Loan loss data rounded to nearest million dollars. 6/ Less than 0.05 percent. 7/ Less than $300,000. 8/ $115,000 "profit" or gain.

Source: American Council of Life Insurance, Board of Governors of the Federal Reserve System, Farm Credit Corporation of America, and Farmers Home Administration.

FmHA had the highest delinquency rates in both dollars and share of the portfolio. The value of delinquent loans was the highest for all lenders in 1986. Trailing the FmHA in order were the FCS, commercial banks, and life insurance companies. Delinquencies as a percentage of outstanding farm loans appear to have peaked in 1986 for all lenders except FmHA, but they remain at high levels by post-Depression standards.

A key concern for farm lenders is the amount of loan losses they have to absorb. Farm loan losses for three major farm

lenders--commercial banks, FCS, and FmHA--for 1982–87 are shown in table 10. The absolute amount of losses experienced by commercial banks was higher than for the FCS as a whole during 1984–85. This changed in 1986, however, with FCS absolute loan loss levels rising above those experienced by commercial banks. FCS loan losses as percentages of loans outstanding have remained below those experienced by commercial banks throughout the 1984–87 span. (Commercial bank agricultural loan loss data are not available for 1982–83.)

There are several reasons for these differences. Commercial banks tend to focus on farm production loans, where problems surfaced more quickly than for farm mortgages in FCS's FLB loan portfolio. Moreover, until 1985 the FCS tended to show more loan forbearance than commercial banks. The regulators at the time more closely monitored the commercial banks, pressuring them to recognize loan losses early. In 1985, the FCS began to move toward more stringent accounting procedures and the Farm Credit Amendments Act of 1985 changed the FCA's regulatory role to more closely match the Federal commercial bank regulators. Also, the FCS realized the challenges that it tended to downplay in 1982–83 had to be addressed. The result was a much more realistic approach to FCS problem loans.

Nevertheless, it often takes 2 years to close out a FLB farm mortgage loan. Thus, FLB problems recognized in 1984 and later are still working their way through to final settlement in the FCS. However, the FLB loan write–off figures did not remain high for 1987, as might have been expected. FLB's took a "wait and see" approach in 1987 because of the new FCS Federal legislation being debated and the FCS banks simply could not afford in many instances to foreclose and realize the loan losses.

Another factor explaining the differences in the timing of write–offs between FCS and commercial banks may be the March 1986 Federal commercial bank regulators' policy initiative to assist banks experiencing heavy losses due to adverse developments in the farm and energy sectors. One part of this policy encourages banks to renegotiate problem loans on more favorable terms to their troubled borrowers. Another part reinforces the incentive for bankers to work with their cash–strapped borrowers by changing the way renegotiated debts is reported. In short, before March 31, 1986, losses for restructured loans were booked immediately. Afterward, as more institutions adjusted to the new rules, reported losses were lowered because loans would be reported as performing under modified terms. This might explain some of the decline in commercial bank farm loan charge-offs.

FmHA exercised a policy of extreme loan foreclosure forbearance into 1985 and the result was very low farm loan losses by the agency. FmHA in- creased foreclosures in 1986 and 1987, but a policy of considerable for- bearance continues because the agency's activities are restricted by both Congress and the courts. The outcome is a much lower loan loss rate than expected from a lender that had a 25.6- percent delinquency rate for its farm loan principal outstanding on September 30, 1987.

A midyear farm credit survey by the Amercian Bankers Association (ABA) drew responses from 961 agricultural banks regarding the conditions of both their farm customers and farmers in their local lending areas. This was an opinion survey mailed to a probability sample (stratified by bank deposit size and region) of 4,515 commercial banks specializing in farm finance. Data presented here are unweighted survey responses. To qualify as an agricultural bank, an institution had to have more than $2.5 million in total farm loans, or have more than 50 percent of all its loans supporting farm activity.

Results from the survey show that bankers report an improved financial picture for their farm portfolios in 1987. The improved picture holds for all regions and types of farming areas. For the United States, some 4.5 percent of farmers in their lending areas went out of business during the July 1986–June 1987 period according to the bankers, but this was down from the 6.2 percent reported for the July 1985–June 1986 period. There is some evidence that this is a lagging indicator, so further impovements may already have occurred. About 59 percent were thought to have left because of financial

Table 11.--Indicators of financial stress in agriculture as reported by farm banks, by region, 1984-87 1/

Item	United States 1/			Northeast 2/			Corn Belt 3/			South 4/			Plains 5/			West 6/		
	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87
	Percent																	
Banks' farm borrowers who had bank financing discontinued (during the year ending June)	4.5	5.6	3.2	4.7	6.2	3.3	3.8	4.8	2.9	6.9	8.6	5.3	4.4	5.1	3.2	3.8	5.7	2.3
Farm borrowers' banks expect to discontinue (during year ending next June)	5.7	6.7	2.1	6.0	6.8	2.3	5.3	5.5	1.6	6.9	12.4	3.6	5.8	6.5	2.0	4.7	5.9	2.5
Banks' farm borrowers loaned up to practical limit in June	36.7	38.8	27.5	34.4	37.1	28.0	34.7	34.3	24.5	47.4	49.7	34.4	35.1	39.8	27.8	43.8	44.4	33.1
Farmers in bank lending area who went out of business (year ending June)	4.8	6.2	4.5	4.9	7.1	5.3	4.6	5.5	3.9	5.6	8.9	6.2	4.9	5.6	4.3	4.3	6.3	3.6
Liquidation categories (sum equals 100%)																		
Normal attrition	27.7	28.9	38.9	30.5	28.2	38.1	29.9	33.8	43.2	19.1	17.9	28.0	28.3	30.5	38.2	19.1	17.7	33.4
Voluntary liquidation	44.3	41.7	35.8	46.0	41.7	38.1	42.3	36.9	33.7	44.5	50.7	40.1	45.2	42.5	34.7	45.3	46.7	39.0
Legal foreclosure	25.8	26.3	23.3	21.9	26.3	21.9	26.3	25.6	20.8	34.2	28.3	28.6	23.9	24.7	25.4	20.3	33.2	26.5
Other	2.2	3.1	2.1	1.5	3.8	1.9	1.5	3.7	2.4	2.2	3.1	3.3	2.6	2.3	1.7	5.3	2.4	1.0
Banks' farm borrowers who filed for bankruptcy (year ending June)	1.5	2.2	1.4	2.0	1.7	1.3	1.4	2.1	1.5	2.0	2.5	2.0	1.0	2.5	1.2	1.8	1.9	1.4
Farmers in bank lending area who filed for bankruptcy (year ending in June)	3.8	4.2	3.2	4.0	3.9	3.1	3.3	4.0	3.2	5.7	6.5	5.9	3.7	3.9	2.7	3.5	3.5	3.0

NA=Not available. 1/ Data are unweighted averages of responses to the American Bankers Association midyear farm credit survey, which uses a stratified random sample (see text). For 1982, 1983, and 1984 data see AFO-26 and AFO-27. 2/ CT, DE, DC, ME, MD, MA, MI, MN, NH, NJ, NY, PA, RI, VT, WI. 3/ IL, IN, IA, MO, OH. 4/ AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV. 5/ KS, NE, ND, OK, SD, TX. 6/ AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY.

Source: American Bankers Association.

problems, down from 68 percent in 1986. Responding bankers also estimate that 3.2 percent of local farm operators filed for bankruptcy over July 1986- June 1987, down one-fourth from July 1985- June 1986.

Nationally, 10.8 percent of the bankers reported increased farm loan delinquencies for the year ending in June 1987. But this was well below the previous year, when over 42.4 percent of the banks reported increasing delinquencies. Further, only 4.0 percent expect farm loan delinquencies to increase during July 1987- June 1988, while about half expect delinquencies to remain at current levels. These expectations are less pessimistic than the preceding year. (Actual farm loan delinquency rates at all banks and many other lenders are presented in the next section of this report.)

The ABA respondents stopped financing 3.2 percent of their farm borrowers as of mid- 1987, after dropping 5.6 percent in 1986 (table 11). They anticipate discontinuing only 2.1 percent in 1988. Another measure of creditworthiness, the proportion of farm customers loaned up to their practical limit, also improved. Some 27.5 percent of the banks' farm borrowers were estimated to be in this position in mid- 1987, down from 38.8 percent the previous year.

On a regional level, the ABA survey revealed some diversity in farmers' financial experience. In the South, all measures of stress were worse than national averages. Although problems in this region have been more severe for the past several years, the 1986 drought and declines in cost competitiveness for traditional crops such as corn, wheat, and soybeans appear to have accentuated southern farmers' difficulties. Exit rates were estimated to be the highest in the South and West, where financial reasons were paramount for approximately 70 percent of those leaving. Financial stress in the Northeast was much improved with 60 percent of those leaving because of financial reasons compared with 68 percent the previous year.

Table 12 -Indicators of financial stress in agriculture as reported by farm banks, by type of farming area, 1985-87 1/

Item	Feed & food crops			Dairy			Beef, cow-calf			Beef, feedlots			Hogs, other live-stock			Cotton		
	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87	'85	'86	'87
	Percent																	
Banks' farm borrowers who had bank financing discontinued (during the year ending June)	4.3	5.5	3.1	5.4	5.4	2.9	3.4	5.8	3.8	6.0	5.7	2.6	3.8	3.9	2.7	8.6	7.1	4.7
Farm borrowers' banks expect to discontinue (during year ending next June)	5.8	6.6	1.9	5.4	5.8	1.9	5.8	7.9	2.7	7.8	5.7	2.0	4.7	4.2	2.0	7.2	11.6	2.1
Banks' farm borrowers loaned-up to practical limit in June	33.0	39.2	27.0	34.6	33.8	25.0	38.0	35.0	27.6	40.1	42.6	33.1	35.0	28.1	23.4	50.1	52.1	38.6
Farmers in bank lending area who went out of business (year ending June)	4.8	5.9	4.3	4.8	7.3	5.1	4.9	6.4	4.2	4.1	5.4	4.8	4.5	4.8	3.0	6.7	8.1	6.0
Liquidation categories (sum equals 100%)																		
Normal attrition	27.6	29.7	40.8	32.0	29.6	42.4	28.9	26.9	33.0	15.5	18.7	35.2	21.6	36.3	37.4	18.2	17.2	23.0
Voluntary liquidation	43.7	40.6	35.6	45.3	41.2	35.1	41.8	42.4	35.6	60.1	44.0	34.3	51.9	42.9	36.1	50.2	47.2	37.6
Legal foreclosure	26.7	26.6	21.8	20.1	24.5	20.0	28.8	28.5	28.6	22.0	34.8	29.5	22.2	20.5	26.2	28.8	30.7	36.4
Other	2.0	3.1	1.8	2.6	4.7	2.5	0.5	2.1	2.8	1.8	2.5	1.0	4.4	0.3	0.3	2.9	4.9	3.1
Banks' farm borrowers who filed for bankruptcy (year ending June)	1.4	2.3	1.5	2.2	1.4	1.1	1.3	1.4	1.1	0.6	3.5	1.3	1.9	0.9	0.9	1.6	4.8	3.1
Farmers in bank lending area who filed for bankruptcy (year ending in June)	3.6	4.3	3.5	4.1	3.3	2.5	4.9	3.6	2.7	2.1	6.1	2.7	3.0	3.2	2.9	3.4	5.9	4.0

1/ Data are unweighted averages of responses to the American Bankers Association midyear farm credit survey, which uses a stratified random sample (see text). For 1982, 1983, and 1984 data see AFO-26 and AFO-27.

Source: American Bankers Association.

Despite marked improvement, areas dominated by cotton farms showed above-average financial stress (table 12). Beef cow-calf and beef feedlot farms also showed above-average financial stress, but not at the levels exhibited by cotton farms. Dairy and hog farms demonstrated quite strong financial indicators. Degrees of stress varied considerably by type of farming.

Recent Developments In Agricultural Lending

During the 1980's, agricultural lenders have experienced much higher levels of loan losses and problem loans, resulting in greatly reduced earnings. In this section, 1987 developments for the major institutional lenders are compared with the earlier years of the 1980's.

Commercial Banks

For agricultural banks, 1986 was the worst year since the Great Depression, but they rebounded in 1987. Based on first-half results, their estimated 1987 return on assets was nearly double that of 1986. Delinquency rates for both farm production loans at all commercial banks and total loans at agricultural banks peaked in mid-1986, and have been receding since then. While several hundred agricultural banks remain in bad shape, the outlook for 1988 and beyond is brighter than it has been since farm loan problems began in the early 1980's, and certainly better than the prospects for the entire commercial banking industry.

Agricultural bank failures set a post-Depression record in 1987; but the proportion of failed banks that were agricultural peaked in 1985. Since 1985, nonfarm bank failures have been growing faster than farm bank failures.

Both the proportion and number of agricultural banks that were vulnerable to failure in the first half of 1987 were down, but the vulnerable bank total continued to increase. This could signal that agricultural bank failures will level off in 1988, and

possibly decrease in 1989. This forecast is contingent upon: no recession; and no further contractions in regional economies where agricultural banks are prominent.

Agricultural banks are improving but the banking industry as a whole is not. During first half 1987, the banking system suffered losses unprecedented since 1934. The second-quarter loan-loss provisions overwhelmed the first-quarter's record earnings, giving the industry an aggregate loss of over $5 billion for the first half of 1987. Most of these losses were concentrated in the Nation's 528 big nonagricultural banks, and most of the loss provisions were earmarked for sour energy and international loans. The health of nonagricultural banks is important for farmers because over 40 percent of agricultural loans supplied by commercial banks -- $19 billion in farm loans -- are made by nonagricultural banks.

Healthy agricultural banks are awash in deposits. Many are aggressively seeking qualified farm borrowers. Standards, however, remain tighter than in the late 1970's, so marginally qualified farm borrowers will have to look elsewhere to fill their credit needs.

There are two generally accepted definitions of agricultural banks. The first, employed by the Federal Deposit Insurance Corporation (FDIC), identifies agricultural banks as those with farm loans (both production and real estate) accounting for 25 percent or more of their loan portfolios. The second, used by the Federal Reserve Board (FRB), classifies a bank as agricultural if its ratio of farm loans to total loans exceeds the unweighted average of such ratios at all banks on a specified date (15.98 percent on June 30, 1987).

Although neither definition imposes a size limit, nearly all banks identified as agricultural by these definitions have less that $500 million in assets. Consequently, nonagricultural banks with below $500 million in assets make a useful comparison group. The less restrictive FRB definition classifies 4,656 banks as agricultural banks, over 1,100 more banks than the more limiting FDIC definition. Unless otherwise stated, the FRB definition is used here because the banks it identifies hold a majority of bank-supplied farm credit. As of June 30, 1987, these banks held close to 60 percent of all agricultural loans made by commercial banks.

The number of banks classified as agricultural has been declining at a faster rate than the commercial bank system as a whole. As of midyear 1986, there were 4.8 percent fewer commercial banks than in 1982, but the number of agricultural banks shrank by 10.7 (FRB definition) to 17.2 (FDIC definition) percent during that time. Around 250 agricultural banks (FRB definition) failed since 1982, and the remainder that disappeared either merged with nonfarm banks or quit specializing in farm loans.

Despite the ongoing problems with agricultural loans, there is little evidence that commercial banks as a group are making major portfolio changes to substantially reduce their agricultural exposure. Farm loans at agricultural banks averaged 35.4 percent of their total loans in mid-1987, almost the same as a year earlier. Commercial banks remain good sources of credit for farmers in solid financial positions.

The volume of farm loans at all commercial banks continues to decline. It fell about 5 percent between mid-1986 and mid-1987 to $44.2 billion, following an 8-percent drop a year earlier. While total farm debt held by banks began falling in 1985, bank farm loans backed by real estate continued rising through the second quarter of 1987. In 1982, only 7 percent of farm real estate debt was held by banks; now commercial banks account for 13 percent of such debt.

Part of the shift to real estate loans reflects the flight of high-quality farm borrowers from the FLB's of the FCS. As general interest rates fell and uncertainties increased about the security of FCS borrower stock, commercial banks offered attractive terms for high-quality farm borrowers. However, not all of this shift toward real estate finance at commercial banks represents former FCS borrowers. A survey conducted in early 1987 showed that most new loans secured by real estate at commercial banks were for the extension and recollateralization of short-term loans rather than new land purchases.

Table 13.-- Estimated delinquent farm production loans as a percentage of total farm production loans, 1983-87 1/

Type of loan	June 1983	June 1984	June 1985	June 1986	June 1987
			Percent		
Total delinquent	4.7	6.5	8.6	10.3	8.1
Past due 30-89 days and still accruing	1.3	1.5	1.7	1.7	1.3
Nonperforming	3.4	5.0	6.9	8.6	6.8
Past due 90 days or more and still accruing	1.3	1.5	1.7	1.8	1.3
Nonaccrual	2.1	3.5	5.3	6.8	5.5

1/ Data are estimates of national percentages for farm nonreal estate loans. Estimates from June 1985 onward are based on reports from banks holding approximately 92 percent of such loans. Previously, only large banks, which held about one-fourth of these loans, reported data for the nonaccrual and renegotiated categories of these loans. In order to ensure comparability, these two categories were estimated for nonreporting banks by Board of Governors of the Federal Reserve System research staff.

Source: "Agricultural Finance: Turning the Corner on Problem Farm Debt," Emanuel Melichar, Senior Economist, Board of Governors of the Federal Reserve System, Federal Reserve Bulletin, July 1987, updated on August 1987, and calculated from the Report of Condition and Report of Income Files, Board of Governors of the Federal Reserve System.

Table 14.-- Delinquent loans as a percentage of total loans by type of bank, 1983-87 1/

Type of loan delinquency	June 1983		June 1984		June 1985		June 1986		June 1987	
	Agricultural banks	Nonag small banks 2/	Agricultural banks	Nonag small banks	Agricultural banks	Nonag small banks	Agricultural banks	Nonag small banks	Agricultural banks	Nonag small banks
					Percent					
Total	4.6	4.6	5.3	4.0	6.4	4.5	7.0	4.9	5.7	4.5
Past due 30-89 days and still accruing	2.0	2.2	2.1	2.0	2.2	2.2	2.2	2.3	1.9	2.0
Nonperforming--total	2.7	2.5	3.2	2.1	4.1	2.3	4.7	2.6	3.8	2.5
Past due 90 days and still accruing	1.6	1.3	1.6	1.0	1.6	.9	1.6	1.0	1.2	.8
Nonaccrual	1.0	1.2	1.6	1.1	2.5	1.4	3.1	1.6	2.6	1.7

1/ Data in this and subsequent commercial bank tables are weighted by bank asset size. 2/ Banks with less than $500 million in assets which were not considered "agricultural" by the FRB definition.

Sources: "Financial Condition of the Farm Sector and Financial Institutions," James Johnson, Emanuel Melichar, and C. Edward Harshbarger; paper presented at the symposium on Financial Stress in Agriculture: Issues and Implications, Kansas City, MO., Nov. 24, 1986 and Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Farm loan delinquencies at all banks are down for the first time in the 1980's. As of June 1987, 8.1 percent of all bank-held farm production loans were delinquent, down 2.2 percentage points from their June 1986 peak (table 13). This represents a $1-billion drop. Most of the decline has been in the nonaccrual category; a majority of these loans were written off at a loss to the banks. Delinquent farm production loans still have not subsided to 1984 levels, so considerable stress remains.

Total loan delinquencies at agricultural banks are also down. However, as with farm production loans, delinquency rates are still above 1984 rates. Delinquent loans accounted for 5.7 percent of agricultural banks' total loans as of June 1987, down from 7 percent a year earlier. This rate is markedly below the 8.1 percent rate for farm production loans at all banks, reflecting the relative strength of agricultural banks' nonfarm loan portfolios (tables 13 and 14).

Problems in the energy sector and selected nonfarm real estate markets, combined with the improving quality of farm loans, are causing the comparisons between agricultural-nonagricultural small banks to change. Loan quality, as shown by delinquency rates, was identical for agricultural and small nonagricultural banks in mid-1983 (table 14). Delinquency rates ballooned at agricultural banks relative to their nonfarm counterparts beginning in June 1984. By mid-1986, rates at agricultural banks were 2.1 percentage points higher than at small nonagricultural banks. From mid-1986 to mid-1987, however, the spread narrowed to 1.2 percentage points.

While the proportion delinquent at nonfarm small banks remains below the agricultural bank rate, the percentage of loans in nonaccrual status rose for small banks not specializing in farm finance. In contrast, nonaccruing loans as a percentage of total loans fell by half a percentage point at agricultural banks. Generally, loans in nonaccrual status are the weakest of the delinquencies and are a leading indicator of charge-offs.

Examining net loan charge-offs together with delinquency rates gives a more complete picture of how agricultural banks are faring. For the banking system as a whole, 1986 was a bad year. Over $16 billion were lost in loan charge-offs. About $11 billion of this was absorbed by the Nation's largest nonagricultural banks. The $1.6 billion in charge-offs at agricultural banks accounted for 10 percent of all loan losses recognized by the banking system.

Agricultural banks charged off 2.22 percent of their total loans in 1986, setting a postwar record (table 15). However, net loan charge-offs for the first half of 1987 were only 0.54 percent of total loans, the lowest since the first half of 1984. On an annualized basis, the charge-off rate at agricultural banks in 1987 is expected to be less than half the 1986 rate.

As with agricultural banks, net loan charge-offs at nonagricultural small banks were low during first-half 1987, averaging 0.38 percent of total loans. This was almost half the year-earlier rate, but up from the last half of 1986. Although still below the charge-off rate at farm banks, the spread between nonagricultural and agricultural bank charge-offs is narrowing, reflecting uncertainty about the energy sector and some nonfarm real estate markets.

Table 15.-- Net loan charge-offs by type of loan and type of bank, 1983-87 1/

Type of loan	1983		1984		1985		1986		1987
	Q2	Q4	Q2	Q4	Q2	Q4	Q2	Q4	Q2
	Percent								
Net loan charge-offs as a percent of total loans--agricultural banks	0.30	0.63	0.39	0.83	0.72	1.40	0.86	1.36	0.54
Net loan charge-offs as a percent of total loans--nonag small banks	.28	.38	.23	.37	.29	.52	.67	.36	.38
Net charge-offs of farm production loans as a percent of production loans--all insured commercial banks 2/	NA	NA	.7	1.5	1.3	2.1	1.7	1.9	1.0

NA = Not available. 1/ Data represent conditions at the end of the period. Annual charge-off rates may be computed by summing Q2 and Q4 rates. 2/ Data are estimates of national charge-offs of farm nonreal estate loans, based on reports from banks which hold about 92 percent of these loans. Additional uncertainty arises as to these estimates because small banks report only charge-offs of "agricultural" loans as defined by each bank for its internal purposes. Banks first reported these data in the March 1984 Report of Income.

Sources: Melichar, Emanuel, "Agricultural Banking Experience, 1985," Board of Governors of the Federal Reserve System, March 1986, revised appendix data as of November 1986 and Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 16.-- Selected bank performance measures by type of bank, 1982-87 1/

Performance measure	1982	1983	1984	1985	1986	1987 Estimated
			Percent			
Rate of return on equity capital						
Agricultural banks	14.0	11.0	9.0	6.0	5.1	8.8 2/
Nonag small banks	12.0	12.0	12.0	11.0	8.3	8.7 2/
Rate of return on total assets						
Agricultural banks	1.1	1.0	.7	.5	.4	.8 2/
Nonag small banks	.9	.9	.8	.8	.6	.7 2/
Provisions for loan losses as a percent of total loans						
Agricultural banks	0.79	1.09	1.47	2.42	2.44	--
Nonag small banks	.77	.79	.77	1.02	1.26	--
Capital as a percent of assets						
Agricultural banks	9.3	9.4	9.5	9.6	9.5	10.0 2/
Nonag small banks	8.5	8.4	8.5	8.5	8.4	8.8 2/

1/ Rate of return on equity is net income after taxes as a percent of the average of total equity capital at the beginning and end of the year. Rate of return on total assets is net income after taxes as a percentage of total assets on December 31. 2/ 1987 numbers are first-half data at annual rates.

Source: Melichar, Emanuel "Agricultural Banking Experience, 1985," Board of Governors of the Federal Reserve System, March 1986, and revised appendix data as of November 1986, and calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Rates of return also confirm that 1987 was more profitable for agricultural banks. Agricultural banks' rate of return on equity capital (ROE) dropped less than 1 percentage point between 1985 and 1986, the smallest since 1982, bottoming out at 5.1 percent (table 16). In contrast, nonagricultural small banks' ROE dropped 2.7 percentage points, marking a second year of declines. First-half 1987 data at annualized rates show ROE's for both agricultural and nonagricultural small banks increasing. But the agricultural banks ROE and its rate of growth exceeds that of nonagricultural banks. Agricultural banks' ROE is expected to be 8.8 percent in 1987, with nonagricultural small bank's ROE reaching 8.7 percent.

This pattern is confirmed by the rates of return on total assets (ROA), which showed continued deterioration for both types of banks in 1986, but a rebound in 1987. Agricultural banks' ROA's are growing faster and are now higher than those of nonagricultural small banks. This is a return to conditions in the early 1980's, when agricultural banks had better returns on total assets than nonagricultural small banks.

Capital positions deteriorated slightly during 1986 for both agricultural and nonagricultural small banks, but first-half data for 1987 show that the buildup has resumed. On average, total (primary plus secondary) capital for agricultural banks fell slightly to 9.5 percent of assets in 1986, but rose to a record high of 10 percent in first-half 1987. The slight decrease in the capital ratio during 1986 reflects net loan losses exceeding loss provisions during the year. This measure of bank capital includes equity and the allowance for loan losses but excludes intangibles, like goodwill. The continuing upward trend in capitalization rates at agricultural banks improves their ability to withstand future shocks to the farm sector.

Annual provisions for loan losses (money taken from current gross income and added to loan loss reserve accounts) rose slightly at agricultural banks to an average of 2.44 percent of total loans in 1986 (table 16). Provisions for loan losses at nonagricultural small banks increased at a much greater rate, but they are still only half that of agricultural banks, at 1.26 percent of loans outstanding.

Performance measures for agricultural banks as a group mask considerable variations in individual bank conditions. A minority of agricultural banks account for a disproportionate share of the problems of all farm banks, and the share undergoing severe stress continued to grow in 1986. At the end of 1986, for example, over 30 percent of all farm banks reported net charge-off rates in excess of 2.5 percent of loans, while the number of banks able to keep losses under 1 percent of loans shrank from 10.6 to 9.6 percent. This probably reversed in 1987.

Agricultural bank problems are also concentrated geographically. In each of 12 contiguous heartland States, agricultural banks have had average ratios of nonaccrual loans to total loans exceeding the national farm bank average since 1983. These States (Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, Wisconsin, and Wyoming) are in several regions where farm banks dominate the local banking system. As of first-half of 1987, farm banks in this region fared worse than the national agricultural bank average, using ROE and ROA as indicators, but they did much better than banks in the States with high concentrations of "energy banks."

Regionally, banking conditions are the worst in a five-State area identified by Federal bank regulators as having the most stressed energy banks. While data on bank exposure to the oil and gas sectors are not publicly available, the majority of banks with energy credits exceeding 25 percent of capital (the official energy bank definition) are in Colorado, Kansas, Louisiana, Oklahoma, and Texas. Three of these, namely Kansas, Oklahoma and Colorado, are also States with high concentrations of stressed agricultural banks.

Often above-average in size, these energy banks tend not to meet the technical agricultural bank definition yet many have substantial farm loans. Overall, banks in this stressed energy bank region accounted for 20 percent of all farm loans made by banks as of mid-1987. Almost 30 percent of the roughly 3,700 banks in the five-State region are agricultural. While most rural and agricultural banks do not have large energy loan portfolios, contracting economic activity in areas dependent on oil and gas production has placed considerable stress on these institutions.

Conditions at banks in the five-State region are deteriorating steadily. Using ROA and ROE as indicators, agricultural banks are doing better than the average bank in the region, but markedly worse than agricultural banks elsewhere. But in mid-1986, the region's agricultural banks outperformed agricultural banks nationally. Overall, banks in the region had an annualized ROE of -7.1 percent and a ROA of -0.5 percent based on first-half 1987 data.

Changing regional and sectoral problems have increased the number of banks with serious difficulties. But improving agricultural banking conditions lowered the number and proportion of troubled farm banks. Two indicators most commonly used to identify troubled banks are: banks vulnerable to failure, as defined by researchers at the FRB; and FDIC's official problem bank list. The FRB identifies the most troubled institutions, called vulnerable banks, as those

Table 17.--Vulnerable commercial banks, 1983-87 1/

Type of bank	1983		1984		1985		1986		1987
	Q2	Q4	Q2	Q4	Q2	Q4	Q2	Q4	Q2
	Number								
Agricultural	34	40	68	93	144	141	197	158	133
Nonagricultural	93	102	85	94	112	130	167	230	247
Total banks	127	142	153	187	256	271	364	388	380

1/ Vulnerable banks are defined as those with nonperforming loans greater than total capital. Loans past due 90 days and loans in nonaccural status are considered nonperforming.

Source: Division of Research and Statistics, Board of Governors of the Federal Reserve System.

Table 18.--Problem and failed commercial banks by type of bank and by region, 1983-87 1/

Item	All banks							Agricultural banks 2/						
	1983	1984	1985	1986	1987	Total	Share 7/	1983	1984	1985	1986	1987	Total	Share 7/
Problem banks 3/	603	800	1098	1457	1559	--	--	106	288	437	600	513	--	--
	----Number----						Pct.	----Number----						Pct.
Total failed 4/	44	78	118	144	202	586	--	7	31	69	66	75	248	--
OBA's 5/	0	1	2	7	19	29	--	0	0	1	3	4	8	--
Total closures 6/	44	77	116	137	183	557	100	7	31	68	63	71	240	100
Closed banks location														
Northeast	1	0	2	0	3	6	1	0	0	0	0	0	0	0
Lake States	1	5	7	6	10	29	5	0	2	7	4	10	23	10
Corn Belt	7	12	23	21	16	79	14	2	6	20	18	15	61	26
Northern Plains	3	13	26	21	18	81	16	2	10	24	20	16	72	30
Appalachia	13	13	5	4	1	36	6	0	2	1	2	0	5	2
Southeast	1	3	3	4	5	16	3	1	1	0	0	0	2	1
Delta States	1	4	1	8	15	29	5	1	2	0	1	4	8	3
Southern Plains	4	11	25	42	81	163	29	0	5	11	13	22	51	21
Mountain	4	5	15	21	23	68	12	1	3	3	4	4	15	6
Pacific	9	11	9	10	11	50	9	0	0	2	1	0	3	1
Stressed energy bank region 8/	6	21	39	71	116	253	45	0	12	19	29	33	93	39

1/ Excludes banks headquartered in U.S. possessions and territories. 2/ A bank was classified as an agricultural bank if it has an above-average farm loan ratio in the December of the preceding year, except for the problem bank category where an agricultural bank is classificated using the FDIC (25%) definition. 3/ Problem bank classification by FDIC is based on the CAMEL rating system used in individual bank examinations. CAMEL is a mnemonic for the key attributes of a bank's condition. They are: capital adequacy, asset quality, management ability, earnings power, and liquidity, Each bank gets an overall rating based on its performance in these five categories. Ratings range from 1 (sound in almost every respect), to 5 (high probability of failure). Banks with ratings of 4 (serious weakness and potential for failure) or 5 are placed on the problem list. FDIC-classified problem mutual savings banks are excluded. Savings and loan associations are not regulated by the FDIC and thus do not appear on its problem list. Data are as of December, 31. 4/ Bank failures are all FDIC-insured commercial banks that are declared insolvent and closed due to financial difficulties, plus banks receiving open bank assistance. 5/ OBA's are banks receiving open bank assistance, financial assistance by FDIC in order to "prevent imminent failure." 6/ Bank closures are FDIC insured commercial banks that are declared insolvent and closed by their espective chartering authorities. 7/ Percentages are based on aggregations of banks for 1983 through October 1987. 8/ Includes bank closures from Colorado, Kansas, Louisiana, Oklahoma, and Texas.

Source: Calculated from information provided by the Federal Deposit Insurance Corporation and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System. Problem list data are from the Office of Research and Strategic Planning, Federal Deposit Insurance Corporation.

with nonperforming loans greater that total capital. Research has shown that this condition is the best single predictor of future insolvency and failure.

As of June 1987, 35 percent of the 380 banks in this vulnerable condition were agricultural banks (table 17). Vulnerable nonagricultural banks, especially those in the energy bank region, now dominate the vulnerable agricultural banks. The share of vulnerable banks that are agricultural peaked at 56.3 percent in mid-1985. During first-half 1987, the number of vulnerable nonfarm banks rose by 17, while vulnerable agricultural banks declined by 25. At mid-1987, over 60 percent of the vulnerable banks were in the five-State stressed energy bank region. Moreover, almost 75 percent of vulnerable banks were in the fourteen States that are net energy exporters.

A more widely known indicator of severe bank stress is the FDIC's official problem list -- banks judged to be in serious difficulty and in need of close scrutiny by bank regulators. The FDIC problem list grew dramatically from 1980, and peaked in June 1987 (table 18). The number of agricultural banks (25-percent definition) on the problem list grew rapidly between 1983 and 1986, but peaked in January 1987 at 609. The number of nonagricultural banks on the problem list continued to increase through 1986 and the first half of 1987. With only a net rise of two nonfarm banks between June and October 1987, the nonfarm component of the problem list is also showing signs of stabilization.

In 1987, 202 banks failed. Of these, 19 received open bank assistance, where the regulators provided a cash infusion to avert closure, and 183 were declared insolvent and

closed (table 18). Agricultural banks made up 37 percent of the closed banks, down from 46 percent in 1986 and 59 percent in 1985. On a regional level, 58 percent of all bank closures over the past 5 years were in the Corn Belt and Plains States. Banks in the Corn Belt and Plains States also accounted for over three-quarters of all agricultural bank closures.

As with other indicators of bank stress, changing closure patterns show how problems induced by contractions in the energy sector have overwhelmed problems caused by the farm sector. In 1987, over 60 percent of all bank closures were in the five-State energy bank region. Over 70 percent of 1987 bank closures were in the 14 states that are net energy exporters.

Although most agricultural banks declared insolvent and closed are relatively small and reopen under new management, bank closures can hurt local credit availability. Debtors with troubled loans held by closed banks are probably hurt the most. No bank, including the acquiring bank, will freely buy such loans and the FDIC is often left to administer them. The FDIC tends to be strict with problem debtors since its legal responsibilities are to the closed banks' depositors, bondholders, and stockholders. Over $350 million in agricultural loans were held by banks that closed in 1987.

Farm Credit System

Although last year was difficult for the FCS, possible improvement in the farm economy and recent Federal assistance portend improved conditions. Net income loss for 1987 totalled $17 million, significantly less than the $1.9 billion loss reported for 1986. However, this was only accomplished by removal of $2.0 billion from the loan loss allowance and significant reduction in losses recorded from sale of acquired property. A majority of the System's FLB's were still experiencing financial stress at the end of 1987.

Legislation passed by Congress late in 1987 provided for a federally guaranteed loan of up to $4 billion to bailout the System. The Congressional Budget Office had estimated that between $2.4 and $3.4 billion in Federal assistance would be required during 1987-1992, assuming no change in the structure or goals of the FCS and no additional transfers between System banks. The System currently does not plan to use the full amount authorized by the 1987 act.

FCS performance during 1987 did not show substantial improvement over 1986. Loan volume continued the decline begun in 1983. Loan volume and capital stock both dropped about 15 percent during the 12-month period ending September 30, 1987 (table 19).

Table 19.--Farm Credit System combined financial data, September 30, 1986, through September 30, 1987

Item	Sept 30 1986	Dec 31 1986	March 31 1987	June 30 1987	Sept. 30 1987
Statement of condition			Million dollars		
Loans	61,834	58,250	55,507	54,268	53,638
Less allowance for loan losses	3,656	3,635	3,532	3,385	3,217
Net loans	58,178	54,614	51,976	50,883	50,421
Cash and investment	9,269	11,413	9,286	9,225	8,237
Other property owned	1,099	1,101	1,112	1,025	983
Other assets	3,311	2,972	2,256	2,449	2,718
Total assets	71,857	70,101	64,629	63,581	62,360
Total liabilities	65,577	64,460	59,388	58,499	57,349
Capital stock and participation certificates	4,428	4,188	3,960	3,861	3,795
Allocated equities	193	193	181	269	173
Surplus, excluding allocated equities	1,660	1,260	1,100	952	1,043
Total capital	6,280	5,641	5,242	5,082	5,011
Total liabilities and capital	71,857	70,101	64,629	63,581	62,360

Sources: Farm Credit Corporation of America, Summary Report of the Conditions and Performance of the Farm Credit System, Quarters ended September 30, 1986 through September 30, 1987.

Surplus, the accumulation of retained earnings not allocated to the loan loss allowance, dropped nearly 40 percent despite a smaller-than-expected loan loss provision for the period. For the System as a whole, surplus fell $217 million during the first 9 months of 1987.

Likewise, net income for the FCS as a whole was higher in 1987, but only because loan loss provisions were much lower. During the first 9 months of 1987, net income was a little less than $200 million (table 20). Loan loss provisions during those months were only $37.7 million, a dramatic drop from the $1.6 billion reported for the comparable period of 1986 and the 1.3 billion previously anticipated for 1987.

While net income was undeniably weak, it was not the only aspect of performance that drew concern. The degree of variation in operating performance across districts is at least as important as the operating performance of the System as a whole. There is joint liability for almost all outstanding debt if any bank has serious financial problems, so all other banks face increased risk and a bigger potential liability when any bank is in trouble. Though this risk does not appear in the balance sheets, it should be recognized any time the "health of the System" is discussed.

During 1987, there was wide variation in performance among types of system banks. For example, one indication of financial institution profitability is the "net interest income margin," the spread between the cost of obtaining funds and the price at which they can be sold. By the end of the third quarter of 1987, the FLB's/FLBA's recorded a negative net interest income margin for the year of $11 million (table 20). The other banks, the FICB's/PCA's and the BC's, reported enough interest income to keep the margin positive for the System as a whole. The FLB's/FLBA's posted a net loss of $276.7 million, excluding provisions for loan losses.

However, the other two types of FCS lenders did not fare as badly (table 21). The FICB's/PCA's net income excluding provisions for loan losses was roughly $4 million for the third quarter of 1987, in contrast to $26.6 million for the comparable period of 1986. The drop was largely due to lower interest income. The BC's experienced an even smaller drop. For the third quarter of 1987, net income excluding loan loss provisions was $10.9 million, down only $41,300 from the

Table 20.--Combined statement of operations for the Farm Credit System and the Federal Land Bank's/Federal Land Bank Association's (FLB's/FLBA's), September 30, 1987

	3 months ended September 30, 1987	9 months ended September 30, 1987
	Farm Credit System Million dollars	
Combined statement of operations		
Net interest income	94.9	353.2
Provisions for loan loss 1/	(85.8)	37.7
Net operating expense	176.5	512.3
Net income	4.3	(196.9)
	FLB's/FLBA's Million dollars	
Combined statement of operations		
Net interest income	(23.9)	(11.0)
Provisions for loan loss 1/	(70.3)	65.9
Net operating expense	53.4	199.9 2/
Net income	(7.0)	(276.7)

1/ Includes losses on other property owned. 2/ Includes a gain of $27.3 million from the sale of mineral rights from the Jackson FLB to the Jackson FICB as well as funds transferred under capital sharing agreements.

Source: Farm Credit Corporation of America, Summary Report of Conditions and Performance of the Farm Credit System, Quarter ended September 30, 1987.

Table 21.--Combined statement of operations for the FCS and its bank groups, September 30, 1987

Million dollars

	FLB's/FLBA's	FICB's/PCA's	BC's	Capital Corporation	FCS Total
Interest income	900.2	290.6	202.6	2.4	1,394.2
Interest expense	924.2	206.2	170.5	0	1,299.3
Provisions for loan loss 1/	(70.3)	(14.6)	(8.5)	0	(85.8)
Other income	11.3	6.5	1.6	0	19.4
Other expense	64.7	86.9	15.3	1.8	195.9
Net income	(7.0)	18.7	19.4	0.6	4.3 2/

1/ Includes losses on other property owned. 2/ Capital sharing reported for the individual groups is eliminated through combination.

Source: Farm Credit Corporation of America, Summary Report of Conditions and Performance of the Farm Credit System, Quarter ended September 30, 1987.

comparable period the year before. Of the components summarized in the BC's net income value, neither net interest income nor other expenses changed much.

Because of continued negative net income, by June 30, 1987 the FLB's/FLBA's had a combined negative surplus ("net worth") of $368 million. This deficit enlarged by another $7 million by the end of the third quarter. Because of emergency legislation passed in 1986 FCS institutions were able to use Regulatory Accounting Procedures (RAP) after July 1, 1986, thereby postponing recognition of loan losses and high interest expenses, and avoiding capital impairment.

RAP, disallowed by the Agricultural Credit Act of 1987, was used extensively from its inception in July 1986 through December 1987. The cumulative net capitalization of expenses and costs under RAP increased the FCS surplus for regulatory purposes $748 million by the third quarter of 1987. RAP effectively revoked a limit placed on certain financial ratios implemented to encourage safe lending practices. But there were other limits which it did not negate. Historically, another safeguard against unreasonable leveraging was to limit the liability (bonds and notes) to total capital ratio: FCA regulations required a value of 20. By March 31, 1987, eight FLB's had exceeded this limitation as calculated by Generally Accepted Accounting Principles (GAAP), the accounting procedure that had been in effect before RAP was implemented; and two as calculated under RAP. Half a year later the situation had not changed much; seven FLB's exceeded the 20:1 liability/capital ratio as determined under GAAP; three of these also exceeded it under RAP. However, the FCA took no action to stop any of the FLB's from issuing debt securities. In fact, it proposed to remove the liability/capital ratio limitation.

Wide variation between types of banks was also exhibited in the quality of loans outstanding during the past 5 quarters (table 22). However, an additional dimension must be evaluated. Poor performance of different types of banks within a single district is a danger signal. Almost all inter-bank assistance which took place during the year was between banks of the same district. Poor financial performance by several types of banks in a single district suggests that extensive collateral sharing agreements may not be possible. This was most notably the case for the Jackson district which was forced to freeze retirement of borrower stock in early December, pending Federal assistance.

Within the FLB's/FLBA's group, there has also been a large degree of variation between districts. For example, for the FLB's annualized net interest income to the average value of earning assets for the first 9 months of 1987 ranged from 1.49 percent in the Springfield district, to negative 2.11 percent in the Jackson district (figure 9).

Table 22. - Farm credit system loan performance status by quarter, September 30, 1986 through September 30, 1987

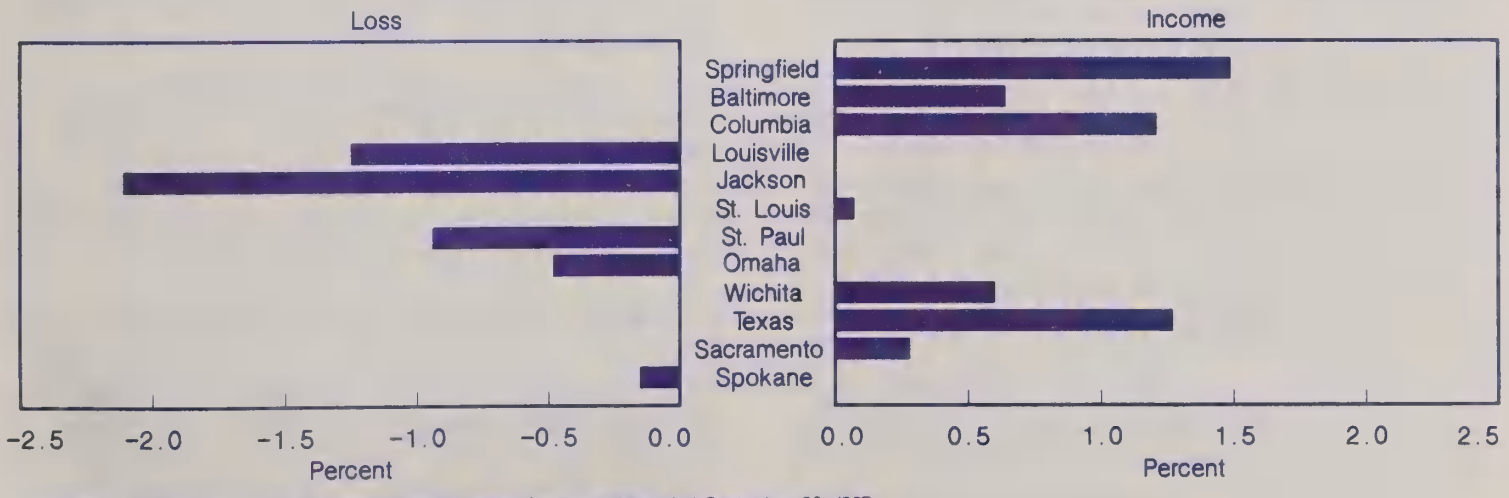
Loan status by lending unit	District												CBC 1/	FCS Totals
	Spring-field	Balti-more	Columbia	Louis-ville	Jackson	St. Louis	St. Paul	Omaha	Wichita	Texas	Sacra-mento	Spokane		
	Million dollars													
September 30, 1986														
Performing	1,480	2,542	4,889	3,606	2,161	3,915	6,634	3,795	3,965	3,398	5,706	3,167	3,651	48,909
Restructured	0	11	0	19	0	0	111	15	3	12	75	1	6	255
Other high risk	29	83	237	228	442	518	1,220	575	432	65	703	120	48	4,699
Nonaccruals	40	70	663	975	431	735	1,463	1,230	788	160	598	817	1	7,969
Total	1,549	418	5,789	4,828	3,034	5,169	9,427	5,615	5,189	3,635	7,082	4,105	3,705	59,545
December 31, 1986														
Performing	1,476	2,494	4,291	3,325	1,946	3,434	5,314	3,464	3,797	3,290	5,604	2,909	3,579	44,923
Restructured	0	10	0	18	0	13	169	11	5	13	117	0	6	363
Other high risk	25	84	272	411	451	604	1,903	746	378	71	652	110	39	5,746
Nonaccruals	36	58	598	603	415	725	1,331	992	771	158	571	807	1	7,065
Total	1,537	2,646	5,322	4,357	2,811	4,775	8,718	5,213	4,951	3,531	6,944	3,827	3,625	58,257
March 30, 1987														
Performing	1,406	2,379	4,291	3,185	1,718	3,168	4,956	3,140	3,538	3,084	5,166	2,641	3,606	42,445
Restructured	0	10	15	2	0	147	303	24	11	15	129	2	6	526
Other high risk	38	121	287	443	454	549	1,881	663	369	123	696	175	53	4,158
Nonaccruals	28	54	537	561	458	784	1,176	1,022	712	178	623	713	1	6,797
Total	1,471	2,564	5,297	4,191	2,630	4,514	6,574	4,848	4,626	3,399	6,614	3,532	3,665	53,926
June 30, 1987														
Performing	1,415	2,388	4,135	3,080	1,539	3,171	4,875	3,101	3,377	2,951	5,258	2,636	3,686	41,313
Restructured	0	11	3	5	3	20	453	59	16	5	290	2	6	871
Other high risk	26	83	320	470	518	524	1,695	576	412	160	351	162	14	5,311
Nonaccruals	24	50	520	530	482	696	1,114	889	649	182	662	672	1	6,471
Total	1,465	2,533	4,978	4,084	2,543	4,411	8,136	4,325	4,453	3,298	6,561	3,473	3,707	53,967
September 30, 1987														
Performing	1,427	2,430	4,003	3,112	1,721	3,114	4,764	3,017	3,404	2,971	5,270	2,676	4,134	42,043
Restructured	0	1	11	23	4	24	596	134	42	6	185	12	6	1,044
Other high risk	22	53	324	442	341	506	1,410	526	366	134	357	145	9	4,635
Nonaccruals	19	46	418	517	473	668	1,122	741	556	182	638	619	1	6,001
Total	1,469	2,530	4,755	4,094	2,539	4,312	7,891	4,418	4,369	3,293	6,450	3,453	4,150	53,723

1/ Central Bank for Cooperatives.

Sources: Farm Credit Corporation of America, Summary Report of Conditions and Performance of the Farm Credit System, Quarters ended September 30, 1986 through September 30, 1987.

Figure 9

FLBs' and PCAs' Ratio of Income or Loss*



* Annualized net income or loss to average-earning assets for 9 months ended September 30, 1987.

Performing loans diminished over this period for all districts, but at a variety of rates. Performing loans at the Springfield and Baltimore districts contracted roughly 4 percent, more than 20 percent at the Jackson district, and almost 30 percent at the St. Paul district. The Central Bank for Cooperatives, unlike the districts, showed both a 13-percent increase in performing loans and a 12-percent rise in total loans during this period. Overall there seemed to have been some leveling-off of the rate at which performing loan volume

was decreasing. However, the wide range of rates implies no uniform pattern of improvement.

To improve its loan portfolio, the FCS has moved loans out of nonaccrual status and attempted to improve the loan terms of financially healthy borrowers, hoping to persuade them to remain within the System. One bright spot on the balance sheet was that prepayment of loans slowed by the end of the third quarter, putting the brakes on loan volume decline. In fact, loan volume increased at some BC's and FICB's/PCA's.

Nonaccruals decreased due to more aggressive restructuring and foreclosure strategies. However, a significant amount of loans were transferred into nonaccrual status as well. At mid-1987, 15 percent of loans that were nonaccruals had been so classified during the second quarter. This $6.5 million entering nonaccrual status may be compared with the $3.4 million loan loss allowance at that time.

But not all news was good. Roughly a quarter of loan and loan-related assets were classified as "high risk" by the FCS in March 1987. This was a new high since the end of 1985. The high-risk category includes nonaccruals, restructures and "other high risk" (i.e., those that exhibit serious credit weakness and require more than normal servicing but continue to accrue interest). According to a 1987 Farm Credit Administration (the regulatory arm of the FCS) published report, high-risk loans are those with more money owing than collateral (at current market prices) backing them. Borrowers holding these loans typically have debt to asset ratios in excess of 100 percent and are technically insolvent. Since March 1987, the percentage of loans that are high risk has decreased very slightly.

During the year, the FCS stepped up its loan restructuring program and as a result, by the third quarter "other high risk" had dropped 19 percent. Restructured loans are those on which the FCS made monetary concessions so that their stressed borrowers could resume repayments. Aggressive restructuring strategies led to $3.3 billion worth of loans being restructured during the first 9 months of 1987. Many restructured loans remain in nonaccrual status until borrowers demonstrate an ability to comply with the revised terms. Thus, two-thirds of all loans restructured during the first 9 months of 1987 did not leave nonaccrual status.

The volume of restructures was markedly different among districts. Two out of the 12 districts, Baltimore and Texas, and the Central Bank for Cooperatives reported decreases in restructured loans. For Baltimore, restructured loans were down to $1 million at the end of the 1987 third quarter, 13 percent of the value a year earlier. Restructures at the Texas district fell to $6 million, 47 percent of the value a year earlier. Restructures at the Central Bank for Cooperatives were down only slightly. On the other end of the spectrum, Jackson increased restructured loans from zero in September 1986, to $4.4 million a year later. Wichita's went up from $3.3 to $42 million, and Columbia increased its restructuring activities from $0.4 to $10.7 million.

Loan loss provisions indicate future riskiness of loans, while charge-offs represent the amount of capital lost through default or restructuring loans in the portfolio. For the System as a whole, charge-offs peaked in the last quarter of 1986. Since that time a substantial fraction has been recovered on what had previously been charged off.

Charge-offs varied among banks and districts. Because of recoveries that occurred in the period, the fourth quarter of 1986 saw the BC's reach an all-time low on net charge-offs, of negative $1.8 million dollars. This was almost exclusively the result of Columbia reporting $1.6 million and the Central Bank for Cooperatives $4.2 million recovery on repossessed assets sold.

Net charge-offs reached a peak for both FLB's/FLBA's and FICB's/PCA's during the fourth quarter of 1986. In the first 3 quarters of 1987, five of the 12 FICB/PCA districts posted negative net charge-offs, with values ranging from negative $7.9 million for Columbia to positive $4 million for Sacramento. FLB/FLBA's showed a more consistent downward trend since the end 1986, having peaked at a far higher level than the FICB's/PCA's for the majority of the districts. FLB's/FLBA's experiencing the most variation during the year were Jackson,

St. Paul, and Omaha; those experiencing the least were Springfield and Baltimore.

The FCS foreclosed on fewer properties during 1987 than in 1985–1986. Despite steep drops in the value of farmland, the value of "other property owned" (farmland and machinery) by the FCS increased about 18 percent from fourth quarter 1985 to fourth quarter 1986, and peaked in March 1987 at $1.11 billion. But by the second half of 1987, both the declining trend in farmland values and the upward trend of acreage held by the FCS reversed. A dramatic policy change was clear in the much–shortened length of time foreclosed properties were held in FCS inventory compared with the previous year. The total value of other property owned by the FCS in June 1987 equaled $97 million, but new acquisitions comprised $85 million of this.

In the last 3 years, the System's debt portfolio has fallen 25 percent, down to $17.8 billion. Despite the need to finance operating losses, in 1987 alone the debt portfolio contracted $7.3 billion. The contraction reflected a continued paydown strategy in response to lower loan demand. Almost all of the 1987 paydown was implemented through retirement of long–term debt. The System cancelled all four of its quarterly long–term bond issues. During the year, $1.2 billion in new term bonds were issued but a total of $11 billion were retired. An urgent need to decrease funding costs forced the FCS to replace maturing bonds that had long maturities, hence relatively high coupon rates, with discount notes that have shorter maturities and therefore relatively low implicit rates. To the extent that maturing issues were replaced, they were mainly supplanted with $9.1 billion increase in (short–term) discount notes. The share of discount notes in the portfolio rose to 25 percent by the year's end, up from 7 percent 3 years ago.

During 1987, proceeds from sales of short–term System–wide securities were used primarily to fund maturing obligations and to cover operating losses. Although banks continued to have access to adequate funds, interest rates on security issues generally rose through the first 9 months of the year.

FCS bond interest rate spreads over Treasury bonds on new short–term issues averaged 35 basis points (bp), ranging from a low of 25 bp in January to a high of 145 bp in October right after the stock market crash. In contrast, the average short–term spread for 1986 was only 28 bp.

Higher interest rates during the year had mixed effects on the institutions' debt costs. The average interest rate on new issues changed little during the year for the System as a whole, from 9.24 at the end of 1986 to 9.36 at the end of 1987. This figure combines a 20 bp drop in the bond rate from retiring high coupon rate securities issued in the early 1980's (from 10.2 to 10 percentage points) and a 140 bp rise on outstanding notes, with maturities of a year or less (from 6 to 7.4 percentage points).

Since the FLB's still have the majority of their portfolio in high–111priced, long–term bonds, their average funding cost fell only 10 bp, to close the year at 10.15 percent. This average cost remains significantly higher than the marginal cost of funds. One of the reasons for this is that the average maturation length is longer than the current marginal maturity length. A large portion of high–priced debt carried by the FLB's will not mature soon. In 1988, the FLB's will face $6.4 billion of long–term bonds maturing with a weighted average cost only 20 bp higher than the current average cost. More than one quarter of the 1987 year–end bond portfolio had an above–average cost and will not mature until 1990 or later.

The FICB's and BC's have portfolios with much shorter average maturities due to the nature of the loans they provide. Consequently, overall costs rose far more than for the FLB's as market interest rates rose. The FICB average debt cost rose 58 bp to 8.1 percent. The BC's, having more than half of their portfolio in discount notes, experienced a 55 bp rise in average debt cost to end the year at 8.1 percent.

Farmers Home Administration

FmHA provides financing for the least creditworthy or most risky farmers, those unable to obtain credit elsewhere at reasonable rates and terms. When the farm economy soured during the early 1980's, many FmHA borrowers were unable to pay their debts. These borrowers, coupled with the

Table 23.--Farmers Home Administration direct farmer loan program delinquencies, June 30, 1980, to June 30, 1987

Date 4/	Number of active cases 1/ (caseload)			Principal outstanding		
		Delinquent 2/			Delinquent 3/	
	Total	Total	Proportion	Total	Amount	Share of total
	--- Number ---		Pct.	-- Mil. dollars --		Pct.
1980	372,046	62,200	16.7	18.192.4	827.6	4.6
1981	423,134	84,955	20.1	22,905.4	1,592.9	7.0
1982	434,460	120,166	27.7	24,137.4	2,933.6	12.2
1983	436,611	146,251	33.5	24,410.2	4,131.8	16.9
1984	446,855	158,237	35.4	25,369.0	5,397.5	21.3
1985	455,561	165,344	36.3	27,786.3	6,384.8	23.0
1986	429,146	157,391	36.7	27,834.6	6,835.2	24.6
1987	396,910	143,270	36.1	26,252.3	7,005.8	26.7

1/ Duplicated cases because some borrowers have loans under several different programs. Active cases exclude those borrowers who are in foreclosure, bankruptcy, or liquidation status. 2/ A case is considered delinquent when a payment is more than $10 and 15 days past due. 3/ Amount delinquent includes only past due principal payments. 4/ June 30 of year shown to account for the annual cyclical trend in delinquencies.

Source: Farmers Home Administration, 616 report, various issues.

addition of farmers no longer able to obtain credit from their usual commercial lenders, caused FmHA loan volume and delinquencies to soar.

FmHA continues to struggle with farmer loan problems that accumulated during the decade, although there are signs that the situation may be stabilizing. Most of these problems are associated with the FmHA's direct (insured) lending programs. The dollar volume of direct loan delinquencies continued to mount in 1987, but at the slowest pace of the decade. Delinquent principal surpassed $7 billion on June 30, 1987, up $170 million or 2.5 percent from June 30, 1986 (table 23). These delinquencies represented 26.7 percent of FmHA's $26.2 billion direct farmer program loan portfolio. A loan is delinquent if it is more than $10 and 15 days past due, a more stringent definition than used by other lenders. Delinquencies would have been greater had FmHA not written-off over $882 million in principal and interest during the fiscal year. Farmer loan write-offs in fiscal 1986 total $270 million.

Despite the slight rise in the dollar volume of delinquent loans, the number of active delinquent borrower cases declined again in 1987. At mid-year, delinquent active cases were about 9 percent fewer than the previous year and stood at 143,270. From mid-1985 to mid-1987 delinquent cases declined by 13 percent, an indication that FmHA is coming to grips with its severe delinquency problems.

The decline in delinquent borrowers can largely be explained by massive efforts in recent years to provide special loan servicing assistance to financially stressed borrowers. FmHA rescheduled, consolidated, or reamortized loans for 120,098, 43,034, and 31,809 borrowers in fiscal years 1985, 1986, and 1987, respectively. Other special servicing procedures undertaken by FmHA included the refinancing of numerous loans at more favorable interest rates; the deferral of loan payments; and the subordination of collateral to other lenders to allow new credit extensions. In fiscal 1987, FmHA subordinated collateral to other lenders for 29,517 FmHA borrowers.

While dollar delinquencies rose slightly in the direct farm ownership (FO) and farm operating (OL) programs over 1986, the highest percentage of FmHA's delinquencies remain in the Economic Emergency (EE) and the Emergency Disaster (ED) programs. The EE and ED progams accounted for $4,988 million (75.7 percent) of the $6,592 million in total delinquent principal payments at the end of fiscal 1987 (table 24). These two programs account for nearly 50 percent of outstanding

Table 24.--Farmers Home Administration direct farmer loan program delinquencies by program, September 30, 1987

Direct farmer programs	Number of active cases 1/ (caseload)			Principal outstanding		
		Delinquent 2/			Delinquent 3/	
	Total	Total	Proportion	Total	Amount	Share of total
	---Number---		Percent	--Mil. dollars--		Percent
Farm ownership (FO)	117,178	26,680	22.8	7,403.8	444.4	6.0
Farm ownership -- nonfarm enterprises	1,201	309	25.7	47.4	4.4	9.3
Operating loans -- excluding youth (OL)	108,919	36,210	33.2	5,876.2	1,111.5	18.9
Operating loans -- youth	874	306	35.0	3.0	1.4	46.7
Emergency disaster (ED)	102,967	40,297	39.1	8,639.6	3,906.6	45.2
Economic emergency (EE)	42,859	19,483	45.5	3,505.0	1,081.9	30.9
Recreation	174	41	23.6	11.2	1.5	13.4
Soil and water	14,494	4,106	28.3	277.3	40.1	14.5
Economic opportunity	167	145	86.8	0.2	0.2	90.1
Total	388,833	127,577	32.8	25,763.7	6,592.0	25.6

1/ Duplicated cases because some borrowers have loans under several different programs. Active cases excludes those borrowers that are in foreclosure, bankruptcy, or liquidation status. 2/ A case is considered deliquent when a payment is more than $10 and 15 days past due. 3/ Amount delinquent includes only the principal portion of past due payments.

Source: Farmers Home Administration, 616 report for September 30, 1987.

farmer loan program principal and provide the biggest challenge to FmHA.

During the late 1970's and early 1980's, the Emergency Disaster program expanded rapidly, providing assistance to farmers who suffered from drought, floods, and hurricanes. Much of the assistance went to farmers in the southern United States. The EE program, funded from fiscal 1978 through 1981 and in 1984, provided credit to help farmers overcome economic hardships caused by credit scarcity or cost-price squeeze beyond their control. Attractive ED and EE program features, liberal lending practices, and the very nature of the loans, explain much of the popularity in these programs and their high delinquency rates.

Lending under the ED program has been tightened in recent years through regulation and legislation. Since January 1, 1987, farmers who could have purchased federally subsidized crop insurance, are not eligible for the disaster program. Obligations for the ED program in fiscal 1987 were only $113.6 million, the lowest since 1972, and down sharply from the 1981 peak of $5,112.3 million.

Currently, more than 63 percent of principal outstanding on EE and ED loans and over 40 percent of borrower cases are delinquent. Moreover, nearly 87 percent of the $4,988 million in past due principal under these two programs has been delinquent for 3 or more years. Continually delinquent loans in all programs are a major problem for FmHA, and indicate the size of future loan losses the agency will likely report.

Despite the high level of delinquencies at FmHA, the number of FmHA borrowers being forced off their farms remains low. During fiscal 1987, 4,721 borrowers or 1.8 percent of all FmHA borrowers left the farm sector for financial reasons. These numbers remain low

Table 25.--Farmers Home Administration farmer program obligations
September 30, 1982, to September 30, 1987

Date 2/	Obligations 1/				Outstanding principal of farmer programs 3/
	Total	Direct	Guaranteed	Share of total	
	----Million dollars----			--Percent--	---Million dollars ---
1982	4,113.9	4,062.7	51.2	1.2	24,568.5
1983	3,070.7	3,000.1	70.6	2.3	24,607.2
1984	4,438.7	3,995.8	442.9 4/	10.0	26,093.2
1985	5,927.7	4,753.0	1,174.7	19.8	28,817.5
1986	4,367.5	2,807.9	1,559.6	35.7	29,240.4
1987	3,080.5	1,515.0	1,565.5	50.8	28,147.6

1/ Obligations are the dollar amounts of funds loaned or graranteed. 2/ Fiscal years. 3/ Total principal balance of loans guaranteed by FmHA and direct or insured FmHA loans at yearend. 4/ Includes $289.9 million in guaranteed Economic Emergency loans.

Source: Farmers Home Administration, 616 Report, 4067 Report, and 205 Report, various issues.

in part because FmHA's foreclosure attempts have been hampered by class-action lawsuits. In 1987, a Federal District Court blocked FmHA from sending out foreclosure notices or from initiating foreclosure procedures against delinquent borrowers, until certain protections were further afforded borrowers. Until FmHA is again permitted to institute foreclosure procedures, loan delinquencies will remain high and future loan losses will build.

Even though relatively few FmHA borrowers have been forced to discontinue farming, the amount of FmHA acquired farmland grew by over 200,000 acres to approximately 1.6 million acres by the end of fiscal 1987. Property inventory tends to accumulate because disposal is restricted by legislation. During fiscal 1987, 2,199 farms were acquired and 1,649 were sold.

Like other lenders, FmHA experienced weaker loan demand during 1987. Farmer loan program obligations (including the guarantee programs) totaled $3,080.5 million, down from $4,367.5 million in fiscal 1986, and well below the $4,596.3 million appropriated (table 25). Total obligations were equivalent to 1983 obligations--the lowest since 1977.

During the last 4 years, much of FmHA's lending has shifted from the Emergency Disaster program to the direct and guaranteed Farm Operating Loan programs. Demand for credit under the direct operating program has exceeded appropriation levels annually since 1982. In 1987, demand for both direct and guaranteed operating credit declined, leaving funds available for lending at the end of the year.

A combination of declining demand, greater emphasis on guarantees, and accelerating write-offs lowered FmHA's outstanding direct loan principal for the first time in recent memory. It stood at $25,763.7 million at the end of fiscal 1987, down $1,812 million or 6.6 percent from 1986. On the other hand, outstanding principal of loans guaranteed by FmHA increased by 43 percent.

The Food Security Act of 1985 mandated that FmHA shift from emphasizing direct lending to guaranteed lending. Under these latter programs, FmHA guarantees repayment of up to 90 percent of a loan made by a qualifying lender, if the farmer defaults. The percentage of lending under the guarantee programs has grown rapidly, accounting for nearly 51 percent of FmHA lending in fiscal 1987 compared with 36 percent in 1986 (table 25). In addition, appropriations for the direct and guaranteed Farm Ownership Loan programs were reduced 37 percent in fiscal 1987 to $400 million. Demand for FmHA's farm ownership loans now exceeds appropriated amounts. Virtually all of the $75 million available for the direct Farm Ownership program was disbursed by the end of April 1987. The $325 million available for the guaranteed Farm Ownership program was exhausted in August.

Although, the loan guarantee programs have grown in recent years, delinquencies

Table 26.--Farmers Home Administration guaranteed farmer loan program delinquencies, September 30, 1982, to September 30, 1987

Date 1/	Number of active loans			Principal outstanding		
		Delinquent			Delinquent 2/	
	Total	Total	Proportion	Total	Amount	Share of total
	--- Number ---		Pct.	-- Mil. dollars --		Pct.
1982	4,067	180	4.4	405.0	12.6	3.1
1983	3,467	186	5.4	355.5	14.6	4.1
1984	4,111	235	5.7	484.2	16.2	3.3
1985	7,160	313	4.4	834.5	19.3	2.3
1986	15,137	723	4.8	1,664.5	31.4	1.9
1987	23,558	1,106	4.7	2,384.0	42.6	1.8

1/ September 30 of year shown. 2/ Amount deliquent includes past payments of principal and accrued interest.

Source: Farmers Home Administration, 4067 report, various issues.

Table 27.--Farmers Home Administration guaranteed farmer loan program delinquencies by program, September 30, 1987

Guaranteed Farmer Programs 1/	Number of loans			Principal outstanding		
		Delinquent			Delinquent 2/	
	Total	Total	Proportion	Total	Amount	Share of total
	---Number---		Percent	--Mil. dollars--		Percent
Farm ownership	2,296	178	7.8	304.8	6.8	2.1
Operating loans	19,829	631	3.2	1,880.3	16.0	0.9
Emergency loans	27	2	7.4	0.6	0.2	37.0
Economic emergency	1,286	251	19.5	162.4	13.8	8.5
Emergency livestock	120	44	36.7	15.9	4.9	30.8
Total	23,558	1,106	4.7	2.384.0	42.6	1.8

1/ Emergency, Economic Emergency, and Emergency Livestock guaranteed loan programs are currently not being funded. 2/ Amount delinquent includes past due payments of principal and accrued interest.

Source: Farmers Home Administration, Report 4067 for September 30, 1987.

remain low when compared to the 25.6-delinquency rate reported under the direct loan programs. Only 1.8 percent of guaranteed loan volume was delinquent at the end of fiscal 1987 (table 26). As with the direct loans, guaranteed emergency loans have the highest delinquency rates (table 27).

The Interest Rate Buydown Program was again used sparingly during 1987. Total program obligations were only $22.9 million in fiscal 1987, well below the $290 million available. The program enables lenders to continue to provide credit to family farmers who are unable to project a positive cash flow without a reduction in interest rates. Under the program, FmHA will make payments to lenders of not more than 50 percent of the cost of the interest rate reduction, up to a maximum total interest rate write-down of 4 percentage points.

Life Insurance Companies

During 1987, serious financial stress continued within the farm mortgage loan portfolios held by life insurance companies. Historically, farm real estate mortgages have been an important life insurance company

Table 28.--Life insurance company mortgage loan delinquencies, 1980-87 1/

End of month	Rates by number of loans		Rates by amount	
	Nonfarm mortgages	Farm mortgages	Nonfarm mortgages	Farm mortgages
	Percent			
1980 June	.95	.79	.79	2.82
Dec.	1.06	.54	.89	2.00
1981 June	.89	1.02	.73	4.04
Dec.	1.11	.77	.69	3.69
1982 June	1.03	1.70	.87	6.45
Dec.	1.07	1.66	.83	6.40
1983 June	1.04	2.99	1.04	9.82
Dec.	1.10	2.63	.90	8.27
1984 June	1.17	3.88	.93	10.38
Dec.	1.24	3.78	.90	9.58
1985 June	1.15	6.26	1.02	14.89
Dec.	1.43	6.34	1.16	15.06
1986 June	1.33	9.08	1.91	19.85
Dec.	1.64	8.30	2.65	17.01
1987 June	1.46	9.12	2.96	18.01

1/ Delinquent loans (including loans in the process of foreclosure). A delinquent loan is a nonfarm mortgage with interest payments in arrears at least 2 months (60 days if other than a monthly pay) or a farm loan with interest in arrears more than 90 days. Reporting companies account for approximately 80 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

investment and a key source of real estate loan funds. Approximately 49,000 farm mortgage loans were outstanding on June 30, 1987. About 75 companies hold approximately 80 percent of all mortgages (farm and nonfarm) held by life insurance companies. The farm real estate loan portfolio is held by approximately 15 companies, down from approximately 20 in 1980.

Delinquency rates based on the number of loans held by life insurance companies were lower for farm mortgage loans than for nonfarm loans throughout the 1970's. The farm delinquency rate first exceeded the nonfarm rate in June 1981, and it has done so continuously since June 1982. The farm delinquency rate was 9.12 percent on June 30, 1987, compared with a nonfarm rate of 1.46 percent (table 28.) The June 1987 farm mortgage delinquency value was the highest recorded since the American Council of Life Insurance initiated its semiannual survey in 1954. Life insurance companies held 4,471 delinquent farm mortgage loans on June 30, 1987.

The delinquency rates on the volume of loans outstanding are proportionately higher for farm mortgages, because these loans are larger on average. The percent of farm mortgage loans that are delinquent has exceeded the nonfarm rate continuously since June 1978. The share rose to a record 19.85 percent by June 1986, but declined slightly to 18.01 percent by June 1987 (table 28). The nonfarm mortgage delinquency rate on the volume of debt outstanding increased to 2.96 percent in June 1987. Some $1.76 billion of life insurance company farm mortgage loans were delinquent on June 30, 1987.

Farm mortgage foreclosure rates by number of loans have exceeded nonfarm rates since June 1979, and stood at 3.91 percent in June 1987 (table 29). The farm rate was over

Table 29.--Life insurance company mortgage loans in the process of foreclosure, 1980-87 1/

End of month	Rates by number of loans		Rates by amount	
	Nonfarm mortgages	Farm mortgages	Nonfarm mortgages	Farm mortgages
	Percent			
1980 June	.08	.13	.18	.57
Dec.	.09	.17	.17	.72
1981 June	.11	.25	.15	1.18
Dec.	.12	.28	.23	1.20
1982 June	.12	.37	.24	1.63
Dec.	.16	.63	.29	2.41
1983 June	.18	.87	.29	2.60
Dec.	.16	.89	.31	2.60
1984 June	.16	1.14	.30	2.97
Dec.	.16	1.75	.18	4.54
1985 June	.17	2.16	.28	6.00
Dec.	.21	2.86	.31	7.11
1986 June	.25	3.42	.69	8.23
Dec.	.29	3.84	.84	7.83
1987 June	.37	3.91	1.11	7.98

1/ Reporting companies account for approximately 80 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Table 30.--Life insurance company mortgage loans foreclosed, 1980-87 1/

Year	Nonfarm mortgages		Farm mortgages	
	Number	Thou. dollars	Number	Thou. dollars
1980	549	63,237	26	18,160
1981	552	58,491	47	55,741
1982	760	131,392	167	170,310
1983	868	114,993	306	347,002
1984	1,024	242,428	475	289,251
1985	1,033	328,558	1,000	530,235
1986	1,541	1,143,082	1,654	827,472
1987 2/	979	826,731	173	342,674

1/ Loans foreclosed include those for which title to the property or entitling certificate was acquired during the period shown; loans assumed by, or awaiting transfer to, the FHA or VA; delinquent cases resulting in loss of title to the mortgagor; and loans subject to redemption.
2/ January 1 through June 30.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

four times larger than 4 years earlier. A total of 1,917 life insurance company farm mortgage loans were in the process of foreclosure on June 30, 1987.

Farm mortgage foreclosure rates by amount of loans outstanding have exceeded nonfarm rates since June 1978 and have reached record levels in the 1980's (table 29). On June 30, 1986, a record 8.23 percent of the amount of farm loans outstanding was in the process of foreclosure, but by June 30, 1987, the rate had declined to 7.98 percent. A total of $780.2 million in life insurance company

farm mortgage loans was in the process of foreclosure on June 30, 1987.

The number and dollar amount of farm and nonfarm loans actually foreclosed during 1980–87 are shown in table 30. Farm mortgage foreclosures have risen each year during the 1980's. Beginning in 1982, the dollar amount of farm mortgage loans foreclosed exceeded that for nonfarm mortgages in each year until 1986. Completed farm foreclosures during all of 1986 totaled $827.5 million, during the first half of 1987 they were $342.7 million. Total life insurance company farm loan foreclosures during the 1980's through June 30, 1987, totaled $2.58 billion with two–thirds of this amount occurring during the last 2 1/2 years of the period.

Recent Credit Policy Developments

Farm lenders in the 1980's have developed numerous special credit policies to cope with borrowers' financial stress. In addition, a number of Federal and State policies and programs have been developed to alleviate farmer financial stress. Whether initiated by the public or private sector, or directed at one type of farm lending institution, or special category of financially troubled farmers, the impacts of special policies and programs typically are distributed among the various types of lenders. This results from the many competitive and cooperative linkages between lenders. Because many farm borrowers use multiple lending sources, a policy or program that helps one type of lender, such as FmHA, usually helps other types as well.

The efforts of the public sector have assisted both farm lenders and farmers. Assistance activities include interest rate buy–downs, interest deferrals, low interest loans, loan guarantees, tax–exempt financing, secondary markets with linked deposits, secondary mortgage markets, and foreclosure review, mediation, and moratoria. Adjustments also have been made in banking regulations, tax codes, homestead exemptions, and bankruptcy law. Available policies include services such as referral hotlines, financial, legal, and stress counseling, job search and retraining assist– ance, and farm management training.

Public policies have the potential to affect farm and lender survival rates, the ease with which displaced farmers build new lives, the economic health of rural areas, and the future competitiveness of each States' farm sector. With regard to public credit policies, it is not clear on balance who is assisted most. Some feel that the recent changes enhance the supply of credit to agriculture, thereby increasing the availability of loanable funds. Others are concerned about what types of farmers are helped most–– marginal farmers, large farmers, and so forth. Still others worry about whether lenders have benefited at the expense of farmers or vice versa.

The net effects are difficult to assess given the number and complexity of assistance and the recent pace of change. The following section, identifies farm credit policy changes that took place in 1987 and some of the possible changes for 1988.

Commercial Banks

In 1987, new policies were implemented and existing programs expanded to assist agricultural borrowers through their commercial banks. The initiatives fall into two groups: those helping banks avoid insolvency or other regulatory actions, and those designed to reduce the adjustment costs associated with imminent recognition of bank insolvency. The expanded capital forbearance program, incentives for banks to renegotiate loans to stressed farm borrowers, and the new banking bill that permits farm banks in agriculturally dependent areas to stretch farm loan losses out over a 7–year period are in the first group. These programs should provide the added flexibility that some agricultural banks need to survive into the 1990's. The FRB seasonal and simplified borrowing programs, new and modified techniques used by the FDIC to resolve imminent bank failures, and use of FmHA's emergency credit teams belong in the second group of policies. The initiatives in the second group can smooth credit flows in communities experiencing bank failures.

The capital forbearance program was liberalized in 1982. This program remains the main element of the Federal commercial bank

regulators' efforts to assist banks experiencing heavy losses due to adverse developments in the farm and energy sectors. Forbearance programs for commercial banks allow those qualifying to operate with substandard capital levels, provided they have an acceptable long-term plan to replenish capital.

The forbearance program was liberalized in three ways. First, capital guidelines for applicants were dropped. Previously, banks with below the 5.5-percent primary capital-asset ratio standard could apply, but generally they had to have a ratio above 4.0 percent to be accepted. Now, severely undercapitalized banks and banks with high capital ratios but even higher problem loan ratios are eligible. Second, forbearance is now available to any qualifying institution, rather than just farm and energy banks. Third, the admission deadline and program termination date have been extended by 2 years, to December 31, 1989, and January 1, 1995, respectively. These modifications apply to national and State nonmember banks (i.e., those directly supervised by the Comptroller of the Currency and the FDIC). State member banks, supervised by the Federal Reserve System, never faced such requirements, although only five State member banks are currently in the program.

Applications for the capital forbearance program have increased steadily since the program began (table 31). As of September 1987, 323 commercial banks had applied for the program; 172 had been admitted, 53 rejected, and the remainder are pending or withdrew their applications. The acceptance rate has increased from 24 percent in September 1986 to 54 percent in September 1987.

While the number of banks participating in the capital forbearance program is increasing, it still only benefits a minority of all severely stressed institutions. According to June 1987 data, 417 banks had substandard primary capital ratios (below 5.5 percent), and only 172 banks had been accepted into the capital forbearance program. This contrasts with conditions in June 1986, in which only 284

Table 31.--Response to the 1986 bank regulator policy initiative

Type of bank	Renegotiated loans as a share of total loans 1/				
	Year ending				
	June 1983	June 1984	June 1985	June 1986	June 1987
	Percent				
Agricultural banks	0.2	0.2	0.3	0.6	0.9
Nonag small banks	0.2	0.2	0.1	0.2	0.3

Number of banks:	Status of capital forbearance program		
	September 1986	March 1987	September 1987
Applying	128	220	323
Approved	31	87	172
Pending	67	69	71
Denied	23	49	53
Withdrew applications	7	15	27

1/ Prior to June 30, 1986, loans restructured in favor of the borrower, reflecting a deterioration in financial condition, were reported by banks as renegotiated "troubled" debt, and included in delinquent debt data. Beginning with the June 30, 1986, call report, such loans were reported as "renegotiated loans, performing according to modified terms" and excluded from delinquent debt data. 2/ National and State nonmember banks as of September 30, 1986; State member bank participation as of October 30, 1986, but believed to be unchanged during October.

Source: Renegotiated loan data computed from the Report of Income and Report of Condition files, Board of Governors of the Federal Reserve System. Information on capital forbearance program participation from the Federal Deposit Insurance Corporation for State nonmember banks, the Board of Governors of the Federal Reserve System for State member banks and the Office of the Comptroller of the Currency for national banks.

banks had substandard primary capital ratios. The number of banks that reported negative equity capital also increased to 59 in June 1987 from 31 a year earlier. The identity of the banks in the capital forbearance program is confidential, but most are believed to be agricultural banks or those located in the stressed energy bank region.

Another program initiated in 1986 by the Federal commercial bank regulators involves renegotiating problem loans and changing reporting requirements to encourage banks to restructure loans on terms more favorable to troubled borrowers. It involves a change in bank accounting practices whereby the terms of a loan may be extended, and interest and principal payments reduced, provided that the entire original principal is reasonably expected to be repaid. Losses on the renegotiation are accounted for as foregone interest income, an economic loss to the bank, but no charge against bank capital is necessary. In many cases, this new accounting practice can be combined with FmHA's interest-rate buydown program, benefiting both banks and farmers.

This initiative also involves changing bank reporting requirements in a way that reinforces the incentive for bankers to work with financially strapped borrowers. Through March 31, 1986, renegotiated debt was counted as nonperforming, making banks reluctant to restructure problem loans. Now, restructed loans are reported as being renegotiated and performing according to the modified terms.

Agricultural banks have responded more favorably to this initiative than nonagricultural small banks. As of June 1987, approximately $2.9 billion in loans at all commercial banks had been reported as renegotiated and performing. Approximately $675 million of these loans were held by agricultural banks, 0.9 percent of their total loans outstanding. Nonagricultural small banks had approximately $1 billion of these renegotiated loans, but this was only 0.3 percent of their total loans outstanding.

The Competitive Equality Banking Act of 1987 included a provision to help small agricultural banks stretch out their recognition of farm loan losses. Small (less than $100 million in assets) agricultural banks (using the FDIC definition) headquartered in farm-dependent areas can now spread out their farm loan losses over 7 years instead of taking them the year they are incurred. Banks wishing to use this new provision must apply to their primary regulator for approval.

Banks applying for the extended loan loss amortization must show that their losses stem from problems in the farm sector, not bad management or insider abuse. Also, the burden of proving that the bank is headquartered in a farm-dependent area rests with the applicants. Bank regulators, however, are not expected to use the locational requirement in a restrictive manner.

Applications for this loan loss deferral provision were low through early December, although qualifying banks may use extended write-offs beginning with the fourth quarter of 1987. It is premature to assess participation, and many banks are believed to be evaluating the relative merits of this program against the expanded capital forbearance program. The loss deferral and capital forbearance programs are substitutes to some degree; each gives banks hit hard by farm loan losses extra time to recover before replenishing capital to meet regulator-set capital-asset standards.

Other policies assist farm banks under stress. To ensure adequate liquidity at small and medium-sized agricultural banks experiencing especially strong local loan demands, the Federal Reserve Bank (FRB) renewed its temporary simplified lending program in time for the 1987 planting season. It is an alternative to the FRB's regular seasonal lending program.

Under the regular seasonal program, loans are made by Federal Reserve System (FRS) District Banks at discount window rates to commercial banks needing increased liquidity to meet seasonal needs for funds. To enhance the usefulness of this program for small and medium-sized banks, especially those that are agricultural in nature, the FRB increased the proportion of the seasonal loan demand surge which may be covered by a FRS loan in 1986. This program is not, however, limited to agricultural banks or banks with farm loans outstanding.

The temporary simplified program, available only to agricultural (FRB definition) banks that might not qualify for the regular seasonal loan program, was designed to meet banks' liquidity needs arising from unusual local loan demands. The liquidity shortfall need not have arisen from seasonal factors for a bank to qualify. Like the regular seasonal program, loans through this simplified program are made at discount window rates to qualifying banks. While qualifying institutions may use either program, they cannot use both simultaneously.

Total seasonal borrowing peaked at $307 million in the week of July 1, 1987, about double the 1986 peak. The number of banks borrowing through both programs peaked at 259 during the week of August 5, 1987. The increase in 1987 could be due to changes in the spread between the discount rate and other rates as well as an early harvest. The temporary simplified seasonal program peaked at $7 million in the week of August 5, 1987, with seven banks participating. The relative lack of demand for these discount window loans reflects, in part, increasing liquidity at agricultural banks observed in recent years.

For agricultural banks as a group, improved liquidity resulted from falling loan-deposit ratios. These declining ratios reflect the scarcity of high quality loan applicants now observed in many rural areas. While stress in these areas reduced the volume of new loans, deposits remained somewhat stable as interest accrued to the larger deposits. Agricultural banks continue to be net suppliers of funds to national money markets, a situation that has persisted since 1980.

A program in the second group of policies is based on an agreement between FDIC and FmHA. This policy enables FmHA to be the production loan guarantor for some of the marginal farm borrowers left without financing due to bank closure. Under terms of the agreement, the FDIC may request an FmHA response when a bank with more than 25 percent of its loans supporting farm activity is closed or is about to be closed. FmHA then sends an Emergency Credit Team to the affected community. The team screens production loans outstanding at the closed institution for farmers who might not be able to secure refinancing through other commercial banks, yet are judged by FmHA to be somewhat creditworthy. The team then issues production loan guarantees to the FDIC for the loans eligible. The FDIC is authorized to sell these guaranteed loans to interested commercial banks.

No direct cash loans are granted by FmHA. Farmers eligible for direct loans are guided to a regular FmHA loan program. All farmer customers of the closed bank, regardless of qualifications, are given credit counseling by the FmHA team. In 1985, the first year of the program, FmHA sent Emergency Credit Teams to 41 farm banks that were closed and wrote 116 letters of intent to guarantee loans totaling $8.7 million. In 1986 the program dwindled to $4 million and has continued to decline in 1987.

In 1986, the FDIC began testing two new policies designed to restrain the problems and costs associated with bank insolvencies. One policy was for the FDIC to provide "open bank assistance" to some institutions approaching insolvency. Essentially, the FDIC removes a portion of the bank's bad assets (loans) in exchange for a cash injection. But to do this, the FDIC requires that the mangers of the bank be changed, the stockholders lose almost all their equity as though the bank has been closed, and that additional private capital be provided. In 1987, 19 commercial banks received open bank assistance, up from seven in 1986 (table 18). However, the percentage of agricultural open bank assistance cases decreased. In 1986, nearly half of open bank assistance cases were agricultural banks, but only 21 percent of the cases in 1987 specialized in farm finance.

The second policy designed by the FDIC to mitigate the problems and costs associated with bank insolvencies is the "total asset purchase and assumption" closure resolution method. Normally, the FDIC auctions a closed bank to the highest acceptable bidder after replacing the bad loans with cash, and collects a premium over the value of the quality assets. So when the bank is auctioned off it is a "clean bank." Such a premium represents the value of the closed bank's charter. But in depressed farm and rural communities, no bidders may be interested at any premium.

The new method provides acquiring banks funds up front to take over the entire failed bank's loan portfolio.

This new method can increase the number of bidders for failing banks, minimize the impact of failures on local communities by keeping the loans within the communities (which allows local banks to work with their stressed borrowers) and lighten FDIC's liquidation workload. Through early December 1987, 19 bank failures were handled in this manner.

Farm Credit System

In each of the past 3 years Congress has passed FCS legislation to protect farmers and financial institutions that participate in the agricultural credit market from loan losses suffered as a result of plummeting asset values and volatile interest rates. Despite its dramatic contraction over the past 3 years, the FCS remains the major player in the agricultural credit market. As a result many of the recent Federal policy initiatives have taken the form of softening the terms on which the FCS operates, ameliorating continued net income loss and dwindling loan volume.

Without Federal assistance the FCS may have become insolvent by the end of 1988. As 1987 ended, several districts were experiencing severe financial difficulties and the Federal Land Bank of Jackson, Miss., froze borrower stock pending the provision of Federal financial assistance.

Financial assistance to the FCS as legislated in the Agricultural Credit Act of 1987, takes the form of a line of credit of up to $4 billion. The loan will be made by creating a new corporation within the FCS that will also assume many of the responsibilities of the FCS Capital Corporation.

The Capital Corporation is disbanded. The act stipulates that all assessments previously ordered by the Capital Corporation will be returned to System institutions. Funds transferred through third-quarter loss sharing agreements will be replaced by funds from the Assistance Corporation.

The new Assistance Corporation will establish a revolving fund by issuing up to $4 billion in uncollateralized bond obligations by the U.S. Treasury. Interest on the bonds will be paid by the U.S. Treasury for the first 5 years, shared between the Treasury and institutions the second 5 years, then solely by institutions for the last 5 years. Both principal and interest will be repaid by the System. The Corporation also will set up a special trust fund by assessing each bank and association a fee based on all surplus exceeding 5 percent of assets (for each bank) or 13 percent (for each association). Money in this fund will be used to pay part of the principal of the uncollateralized bonds, and any interest due from a System institution in default.

The Assistance Corporation is also designed to purchase specially issued preferred stock of any institution that requires financial assistance. Institutions may apply for aid when borrower stock is impaired. The Assistance board will be required to approve assistance when the value of stock drops to 75 percent or less of par value, unless the institution is to be liquidated. The new board will be allowed to impose conditions on institutions receiving assistance, giving it power over debt issuance, interest rates on loans, and business and investment plans.

A major reason why Congress assisted the FCS was that it is commonly regarded as having "quasi-agency status." The practical implication of agency status is that the Federal Government will not allow the organization to become insolvent. This decreases the risk premium charged by investors allowing the organization to raise funds at relatively low costs. The FCS was at one time an agency of the Federal Government and is still generally considered to reflect an important concern. If Congress decided quasi-agency status of the FCS did not carry a guarantee against default, other federally sponsored credit agencies could face higher funding cost as well.

While Federal assistance allows the FCS to operate in the short-run, the assistance is not inexpensive. To make sure the FCS pays back the loan the Assistance Corporation will create a reserve fund. Additionally, to make

sure that the FCS does not soon return to the situation where Congress feels obligated to bail it out, a bond insurance program will be initiated.

The act will establish a Farm Credit System Insurance Corporation to insure bonds, notes, debentures, and other obligations issued by the System banks through the Federal Farm Credit Banks Funding Corporation. Each System bank is required to have insurance. The Fund's startup capital will come from the FCA's revolving fund. Then, beginning in 1990, each System bank will be assessed an annual fee based on nonaccrual loans (0.25 percent) and accruing loans (0.15 percent). A reserve fund will be set up to help System institutions needing assistance in honoring their bond obligations and retiring borrower stock at par value.

Insurance coverage will become available after 5 years. System banks retain a "joint and several liability" for System obligations in the case that the insurance fund is depleted by future crises. The bond insurance title also provides FCA with the power, similar to the FDIC, to liquidate, effect a merger, or provide financial assistance to FCS institutions.

Both the 1985 and the 1986 Amendments provided for increased sharing among the System banks, with little success despite ultimate "joint and several liability" of System debt issued. The experience of Capital Preservation Agreements and the Capital Corporation point out the inherent difficulty of imposing regulation that assumes cooperation between institutions, in as much as it is inevitably against the short-term interests of some of the institutions that make up the System.

Capital Preservation Agreements are contractual obligations of financial responsibility signed as a condition of "joint and several liability" on bonds issued. Capital transfers as required under the Agreements were first made in 1985 and continued until the end of 1986. Accrual of capital, i.e., promises to transfer capital, were terminated under the 1985 Amendments but the termination was not
mplemented until the fourth quarter of 1986. Retroactively, the FCA decided at the end of 1986 that accruals that had taken place after the second quarter of 1986 were to be reversed.

Implementation of the reversal was quickly challenged by the board of directors of two districts because it would likely result in capital stock impairment for the six FLB's that recorded Capital Preservation receivables during the third quarter. The courts ruled that the procedures followed by the FCA were illegal. This ruling was re-enforced by the next year's legislation, the 1986 Amendments. The Amendments prohibited reversal of intra-system financial assistance received or accrued prior to October 1, 1986. Numerous lawsuits followed.

In fact, litigation involving accruals that took place during the third quarter of 1986 effectively barred all payment of them. Cumulative payments under the Capital Preservation Agreements, since their activation in 1985 until the end of 1987, totaled $610 million. Of the $498 million of remaining Capital Preservation accruals after the last payment in October 1987, $415 million related to the amount accrued in the third quarter of 1986.

The now defunct Capital Corporation is similar in many respects to the newly legislated Assistance Corporation which will replace it. The Capital Corporation was chartered in 1986 as a separate entity within the FCS in accordance with the Farm Credit Amendments of 1985. The Corporation was to act as a channel for Federal Government financial assistance and to assess the surplus of healthy banks in order assist the banks on the verge of collapse.

In third-quarter 1986 the Capital Corporation first attempted to assess financially stronger institutions $296.6 million to assist weaker institutions. By the end of fourth-quarter 1986, more than 12 cases had been filed against the Capital Corporation to avoid the assessments. Numerous suits also were filed attempting to compel the Capital Corporation to return funds paid under the assessment program.

Although the Capital Corporation only collected under half of the assessments, it

disbursed even less. Of the original $296.6 million assessment, $175 million was never collected, due to a combination of court-imposed restrictions, and refusal of assessed institutions to make payments. The only disbursement was to the Wichita FLB in December, 1986, when the Capital Corporation agreed to purchase $10 million of preferred stock issued by the Wichita FLB.

The Capital Corporation accomplished little to help the institutions, and may have even hurt some. Several districts that had earlier complied with the Capital Corporation assessments had, by October 1987, developed collateral deficiencies of their own. At year's end 1987 these were being remedied through the use of an intra-district collateral-sharing agreement.

The act effectively permits a more flexible organizational structure of the System, while at the same time requiring continuous, rather than periodic, shared financial responsibility. Assessment of capital when times get rough is replaced with the establishment of insurance for bondholders, and for the Treasury. Borrower stock is also insured under the new act for 5 years.

System restructuring has been one of the most controversial titles of the 1987 act. Changes to be made include the merging of institutions, expanded lending powers, and an expanded regulatory role for the FCA. The act legislates some reorganization of the System and sets up a process that encourages further reorganization with stockholder approval.

The Federal Land Bank and Federal Intermediate Credit Bank in each district are required to merge within 6 months of the legislation's enactment. Several votes by stockholders are also required. These include whether to merge local PCA's and Federal Land Bank Associations with their (merged) district bank, whether banks for cooperatives and the Central Bank for Cooperatives should merge into a National Bank for Cooperatives, and whether the number of FCS districts should be decreased.

Banks for Cooperatives will be allowed to lend to subsidiaries of cooperative borrowers, and Federal Intermediate Credit Banks will be allowed to expand their clientele to other financing institutions. Land Banks will be able to continue to make loans up to 85 percent of appraised market value of land used as collateral. However, the FCA would be able to require that the loans not exceed 75 percent of the appraised value. The FCA is empowered to assess penalty charges of up to $500 per day for violations by System officers and directors.

Aware that a large number of farmers will continue to have difficulty remaining in business, Congress has acted to soften foreclosure terms specifically with respect to FmHA (discussed below) and the FCS. While FCS previously had one of the least aggressive foreclosure policies of lenders, due to increased difficulty in funding operation, it now has one of the most aggressive. All Federal Land Banks and Production Credit Associations will be required to restructure "distressed" loans if it is less costly than foreclosure and collateral liquidation. Distressed loans are those that are delinquent, have insufficient collateral, or belong to borrowers who are unable to repay.

Borrower rights, particularly with respect to restructuring, are dealt with extensively in the act. All nonaccrual loans with System institutions receiving assistance will be required to be reviewed for restructuring. A special assistance board will be created to monitor and regulate compliance with restructuring standards. System banks will be required to notify all borrowers of restructuring policies, and must meet with all borrowers that have delinquent loans outstanding to consider the borrowers' proposals for restructuring. The lender will be encouraged to make arrangements which would leave the borrower in control of the residence and some adjoining land. Each institution will develop a policy allowing the previous owner, in the event of foreclosure, the "right of first refusal." Federal matching grants will be available for States that create mediation programs for lenders and farmers.

Rights of lenders are also addressed in this act. A System institution and the assistance corporation retain the right to foreclosure if there are reasonable grounds to believe future actions of the borrower will dissipate or divert the loan collateral.

Borrowers will forfeit the same dollar amount of stock that is written off by the lender, excluding that needed to maintain voting rights.

The future role of System capital stock is legislated to undergo considerable change. Currently outstanding borrower stock is guaranteed for 5 years, allowing retirement at face value. This guarantee covers stock that was frozen or retired for less than par by any institution after January 1, 1983, all stock outstanding on the day of the law's enactment, as well as that purchased within 9 months of enactment or before approval of an institution's new capitalization plan, which ever is earlier.

A loan origination fee will be established. The fee will probably discourage prepayment of loans by increasing their effective cost if they are paid back early. It also guarantees institutions funds that previously have been assumed though not necessarily realized.

There will be two categories of stock; voting and non- voting. Voting stock must be issued to borrowers who are farmers, ranchers or farm cooperative associations, but the stock cannot be retired at the time the loan is repaid. Instead, voting stock will be converted to non-voting stock 2 years after repayment. Additional non-voting stock may be issued to non- borrowers at the discretion of the institutions. The amount of voting stock required to be held by each borrower will be $1,000 or 2 percent of the loan, down from the currently required 5 to 10 percent.

Institutions would not be allowed to pay dividends or retire stock if the value of the "permanent capital"- to-asset ratio falls below the required value. Permanent capital is defined as allocated and unallocated earnings, all surplus (less allowance for loan losses), and stock other than that which can be retired by the holder on repayment of a loan or that is protected under the borrower stock guarantee provisions of the act. The requirement not to fall below this ratio is similar to standards imposed on commercial banks.

The Agricultural Credit Act of 1987 also provides for the creation of a secondary market for agricultural real estate and certain rural housing loans. While the organizational structure of the market is explicitly laid out in the act, the type of security that may be issued is left up to the issuer. This particular clause does much to keep the net effect of the new market an open question.

A secondary market in effect translates long term loans into easily marketable securities. It gives increased liquidity to institutions originating, and allows investors decreased risk of default on the securities bought. It may also decrease the cost of loans for borrowers. The way the market works is that the loan originator processes the initial loan agreement then sells the majority of each loan to a "pooler." The portion of each loan retained by the originator is the first source of funds tapped in case of default, and is designed to assure adequate risk assessment.

The pooler issues bonds backed by bundles of loans bought, providing "credit enhancement," assurance that interest and principal of the loans will be paid. Credit enhancement is provided both from the fact that bundling loans lowers aggregate risk of default, and by additional explicit insurance provided by a private insurance company or the Federal Government. The pooler makes income on the spread between the cost at which the loans are acquired and the price at which the bonds are sold.

The Agricultural Credit Act of 1987 allows all financial institutions, not just those of the FCS, to act as originators. Though other than System institutions qualify as pooling firms, commercial banks will be prevented from performing this function due to the Glass--Steagall Act. Each pooling firm is required to maintain a reserve, equal to 10 percent of the unpaid value of loans in each pool.

The Federal Agricultural Mortgage Corporation, or "Farmer Mac", as it is nicknamed, is to be an entity within the Farm Credit System with authority to provide repayment guarantees for approved pools. The mortgage corporation would create a special reserve fund by assessing each pooling firm a fee based on the value of the loans. This fund will be used to guarantee investors timely payment of principal and interest on securities.

Any loan losses that exceed the poolers' and corporation's reserves are covered, subject to appropriations, by the Treasury, up

to a total of $1.5 billion. Farmer Mac securities will not be treated as Government securities, and therefore will be subject to regulation by the Securities and Exchange Commission (SEC).

Farmers Home Administration

The Agricultural Credit Act of 1987 discussed above also contains important provisions for FmHA. Under the act FmHA faces new lending programs, enhanced rights of borrowers, and new lending procedures. Favorable for many borrowers, the new provisions will likely decrease FmHA delinquencies, but could cause FmHA loan losses to soar. Most noteworthy is a new debt restructuring policy for delinquent loans. This policy aims to recognize and minimize FmHA loan losses, while at the same time allowing borrowers to continue farming.

Under the new policy, FmHA must restructure a delinquent loan if such restructuring is a lower cost to the Government than foreclosure or forced liquidation. Restructuring will be used if other servicing programs are insufficient in assisting the borrower. Loan restructuring involves writing down principal and interest or setting aside debt up to the Government's net recovery value of the loan (fair market value of FmHA's loan collateral less foreclosure costs). Farmers are eligible to have their loans written down when the present value of such loan restructuring is greater than the Government's net recovery value. If the present value of restructuring is less than the net recovery value, FmHA is permitted to foreclose, but only after the farmer has declined to pay off the loan at the net recovery value.

FmHA is to encourage participation of other lenders in restructuring (through State mediations programs or not). Failure of other lenders to participate would not affect farmer eligibility--providing loan restructuring was still a lower cost to the Government. Delinquent borrowers are eligible if the delinquent loan resulted from factors beyond their control, they have acted in good faith in dealing with FmHA, and they can meet household and farm operating expenses and all debt servicing requirements.

Final program regulations and the participation of other lenders in restructuring will be important factors in determining the number of loans which are restructured. Depending on these and other factors, the loan write downs could force FmHA to recognize billions of dollars in loan losses. Loan write downs will likely be greatest in the emergency loan programs. These programs contain the majority of FmHA's long term delinquencies (continually delinquent loans) and typically have little collateral backing them--thus permitting the greatest write downs.

Two program provisions could be important in determining the size of FmHA loan write-offs. One provision requires a 10-year shared appreciation agreement for real security property, enabling FmHA to recapture some of the write-down if real estate values rise. Another provision requires borrowers paying off a loan at the net recovery value, to repay FmHA for any gains received by selling the collateral within 2 years of the pay-off.

The little used Interest Rate Buydown Program, set to expire at the end of fiscal 1988, was extended through fiscal 1993. An important rule change affecting all new guarantee loans is the new requirement that lenders cannot initiate foreclosure on a guaranteed loan until after a farmer is denied eligibility in the Interest Rate Buydown Program. The rule could decrease the attractiveness of guarantee programs with other lenders. Conversely, the creation of a special secondary market for guarantees should increase their attractiveness by giving lenders the ability to sell these loans. The new market will be administered and regulated by USDA.

The legislation uses existing lending authority of the Interest Rate Buydown Program to create a demonstration program for the purchase of FCS acquired farmland. Under the program, FmHA will issue certificates of eligibility to FmHA eligible borrowers for the purchase of FCS acquired farmland at subsidized interest rates. Certificates enable farmers to obtained guaranteed loans from other lenders at rates which have been reduced by up to 4 percentage points for up to 5 years. In addition, lenders who reduce interest rates on

loans by at least 1 percent will receive a 95-percent loan guarantee instead of a 90-percent guarantee.

The FCS is to set aside up to $250 million of its inventory for the program. The program is in part a policy response to recent cuts in funding for farm ownership programs.

Rights of FmHA borrowers are strenghtened by several major provisions in the legislation. First, FmHA must notify borrowers with loans over 180 days delinquent of their rights and available loan-servicing programs before loan collection can begin. Second, borrowers will be able to appeal county and State office loan decisions through a newly established National Appeals Division within FmHA. Third, current rules requiring FmHA to release normal income security (that is, remove the lien on proceeds from the normal sale of farm commodities and livestock equal to an amount sufficient to meet essential household and operating income) are extended to eligible farmers whose loans have been accelerated (pre-foreclosure status) between November 1, 1985, and May 7, 1987. Maximum income release is $18,000 for 12 months or until a decision on restructuring is made.

There are new rules concerning the sale and management of FmHA-held farm real estate. First, farm families must now be notified of their right to repurchase or lease their farm for a period of 180 days after FmHA acquires the farm. Second, eligibility requirements for homestead protection are relaxed to help more farmers retain their homesteads. Third, county committees are given stronger authority to classify farms as suitable for sale, to ensure that inventory farms are sold only to family-sized farm operators (priority given to those needing it the most), and to assure farms are sold at their appraised value.

Most of the new programs and rule changes will benefit FmHA borrowers facing financial difficulties, enabling many to continue farming or maintain their farm residence. These changes do come with a cost to FmHA, however. The size of these costs is uncertain at this time. Of future concern is the message the more lenient lending policies send FmHA borrowers who struggle to make their payments. Their incentive to make future payments may be diminished by the favorable treatment some borrowers enjoy.

Besides the passage of the new legislation there were other policy developments at FmHA in 1987. First, Congress mandated that FmHA return to providing production loans providing a farmer can demonstrate ability to repay the new loan, without regard for ability to repay existing debt. Regulations do require other creditors to forebear on back-debt collections during the year. Second, FmHA stopped preempting USDA farm program payments to farmers whose loans are in acceleration status. Finally, early in the year, FmHA proposed major changes in its lending regulations. These changes included tighter credit standards, new loan application and evaluation procedures, rules which would facilitate the trend towards guaranteed lending, and increased priority to servicing existing borrowers. However, after protests from farm groups and Congress, FmHA withdrew these regulations from review.

Life Insurance Companies

In 1987, only a few life insurance companies were active in aggressively pursuing new farm loan business. One company even had a moratorium on new loans to anyone "potentially eligible" for declaring bankruptcy under the new Chapter 12 provision of the bankruptcy code. Companies report that loan funds are available for qualified borrowers, but they typically are limiting farm loans to renewals and increases of good loans and to a small number of qualified new farm borrowers.

The companies continue to develop policies to deal with problem farm loans. They have restructured farm loans for those situations warranting it by using a variety of policies- capitalization of interest, deferral of interest, deeds in lieu of foreclosure on a portion of the security, reduction of the interest rate in exchange for an arrangement to participate in the operating profits and profits upon sale, or a combination of these.

Life insurance companies own large amounts of acquired farm properties, with the total holdings on March 31, 1987, estimated at 2.4 million acres valued at $1.44 billion. Life insurance companies have tended to hold on to foreclosed property longer than the other

institutional lenders. The life insurance industry, due to the small dollar value of farm loans compared with total industry assets and the tightly regulated and aggressive internal management of the industry, was swift to recognize problem loans and foreclose when farm loan problems began to occur in the early 1980's. This was in contrast to the FLB's.

The life insurance companies can afford a more wait and see attitude toward future farmland price trends than can the FLB's, where farmland is the primary asset. Currently, only a few of the companies have aggressive sales campaigns to sell acquired farmland. They view the acquired farm property as a distinctly different management problem from their purchased acres. Purchased property tends to be large, high-value holdings and more easily managed. Foreclosed property tends to be in smaller, more scattered and diverse tracts and thus harder to manage.

An important policy development for the life insurance companies during 1987 was the secondary market for farm mortgage loans provision contained in the FCS legislation. Generally the life insurance companies lending to agriculture have supported the creation of a secondary market. A federally-backed secondary market should encourage banks, life insurance companies, and perhaps other non-traditional sources of agricultural credit to participate more actively in long-term farm mortgages, but as intermediaries rather than as final lenders since the lender will not hold the loan in its portfolio. It will use funds supplied by investors to make loans. The lender has greatly reduced his loan risk.

Current Agricultural Lender Outlook

The financial problems facing farm lenders will lessen in 1988, but significant challenges will remain. Farmland values have increased, debt problems have declined, and a positive return to farm equity has occurred for the first time since 1980. All of these developments are likely to continue in 1988.

Stable or rising land prices, stabilizing commodity prices, relatively strong farm income, and continued Government payments will afford lenders an opportunity to continue restructuring farm loans and liquidating acquired property. Lenders can utilize the opportunity to address many of their farm loan problems.

Not all farmers are expected to share equally in the recovery. For a declining, but still important core group of highly leveraged farmers, financial stress is expected to continue. The expected 1988 increase in farmland values will be less than the overall rate of inflation. The farm income outlook continues to depend heavily on Government loan, storage, and direct payment programs and the prospects for continued lower production costs.

All major institutional farm lenders will continue to experience high levels of liquidity, given the relatively weak demand for farm loans. Considerable competition will prevail for existing good quality farm loan business. Moreover, the next year should see a slowing of new Federal and State laws and institutional innovations to assist farm lenders and farmers. The 1980's have seen much action on this front. Both the lenders and farmers have benefited considerably as a result with both losses and risk being transferred to the public sector.

The next year offers a number of promising signs of continued economic recovery for farm lenders and farmers. However, the situation is one of considerable fragility. Not only are Federal farm programs increasingly coming under the budget squeeze, but further farm sector cost cutting and interest savings from debt reduction may be nearing an end. The large debt restructuring has been possible because of major sacrifices by both farmers who paid down debt and lenders who restructured and wrote off debt. Although, debt may be reduced some more there is a limit to further reductions. There remains considerable concern for the financial health of the farm sector and farm lenders given the current economic environment.

Commercial Banks

The outlook for agricultural banks is guardedly optimistic. Farm production loan delinquency rates at all commercial banks and total loan delinquency rates at agricultural banks are expected to continue declining. The number of agricultural banks vulnerable to

failure is expected to continue falling, provided net farm income remains strong. For agricultural banks as a group, rates of return on equity and on assets are rising along with farm asset values--all promising signs for 1988. Agricultural bank failures will most likely level off in 1988 and possibly go down in 1989, barring a major farm sector upset or nationwide recession.

At the national level, commercial bank-supplied credit available to farmers will continue rising in 1988. Increased availability reflects the massive paydown in farm debt during the past several years and continued weak demand for new loans by farmers. This has resulted in a historically low loan-to-deposit ratio at agricultural banks, 0.53 in mid-1987, much below what most farm banks want. However, credit standards will remain higher than in the mid-1970's. Marginally qualified farm borrowers will continue having difficulty securing credit from healthy farm banks.

Despite this enhanced availability, farm debt held by commercial banks will likely continue contracting along with total farm sector debt. The rate of decline will be curbed if the land market rebounds further and as the new secondary market for farm land loans develops. Commercial banks will continue to increase their relative share of real estate-secured loans in exchange for crop-secured (i.e., production) loans.

Regional problems have shifted from the North Central to the Southwest. Agricultural bank problems in the five States tied to energy production are more pronounced than elsewhere, a reversal from a year earlier. The difficulties experienced by banks tied to the oil and gas sectors in Colorado, Kansas, Louisiana, Oklahoma, and Texas have spilled over to other local banks, reflecting the deepening regional economic slump. Oil prices are not expected to recover in 1988, so prospects in the region will remain bleak. Local agricultural banks will likely experience continuing loan delinquencies and losses, especially by farmers who relied on oil and gas royalty income to cover debt repayments.

Farm sector financial problems will have a diminishing effect on the commercial banking system in 1988, but the banking industry faces some critical adjustments this year. Developing country and energy-related loan repayment problems will continue to hamper bank earnings and stability. A recession this year would be particularly difficult for many banks whose capital positions have been weakened by losses on farm, energy, and developing country loans. Developments at the Nation's nonagricultural banks are important for farmers because these banks hold over 40 percent of all bank-supplied farm credit.

In response to declining profitability and greater competition in their traditional areas, banks are pushing for expanded powers, especially in the securities underwriting and trading arenas. State-chartered (but federally insured) banks in some States already underwrite corporate securities, offer full brokerage services, and participate in direct real estate investments. If Congress allows such activities, some agricultural banks may benefit, although the biggest beneficiaries will be the larger nonfarm banks. While expanded powers mean greater opportunities and more ways to diversify, they can also lead to increased risk.

The risks are greatest when banks with little or no equity left to lose remain open. Although the number of banks vulnerable to failure (i.e., delinquencies greater than capital) has plateaued, a small but growing number are reporting negative equity capital positions. As of June 1987, 59 banks with average assets of $68 million reported negative equity positions, up from 10 in mid-1982. This reflects, in part, the inability or unwillingness of the regulatory agencies to shut down all banks as they become insolvent. In such weak banks, managers tend to have strong incentives to make high-risk, potentially high-return loans in an attempt to gamble for recovery. This could result in poor lending patterns, inefficient resource allocation, and higher costs for the deposit insurance fund (and taxpayers) in the longer run. Allowing such institutions into the securities-underwriting and brokerage businesses compounds the risk of future losses.

Farm Credit System

The Agricultural Credit Act of 1987 both staved off imminent insolvency of the FCS and

addressed long-run issues of increasing financial stability. However, the future is one of major challanges for the System.

Health of FCS institutions is normally tied to interest rate dynamics. However, changes in the interest rate will not have as great an impact potential on the FCS in the short-run as usual due to the assistance provided under the 1987 act. Activity in the farm sector itself is the other key factor. The main areas to watch are the size of farm sector subsidies and prospects for exports. Subsidies may be lower in 1988 than in 1987. Agricultural exports, however, may receive a major boost from continued devaluation of the dollar. The combination of these factors and the loan restructuring clause of the 1987 act may lead to lower rates of nonaccruals and chargeoffs for the FCS in the coming year.

While the quality of the currently held loans will probably increase, loan volume and the interest rates charged on loans will continue to be an area for concern. The 1987 Congressional assistance package brought with it considerable increase in the overhead that future borrowers will have to pay; RAP deferment payments, legislated capital buildup (beginning immediately), bond insurance (beginning in 1990), interest payments on the bailout loan (beginning 1993), as well as principal of the loan. The loan restructuring program could also possibly increase costs.

Currently the effect of the secondary market for farm mortgages on the FCS is expected to be negligible. Income accruing to FCS institutions in their status as "poolers" may be outweighed by increased competition from other lenders in the shrinking agricultural loan market.

The agricultural credit market in the coming year will probably continue to be more demand- than supply-driven. Rural commercial banks currently exhibit undesirably high loan-to-deposit ratios and the FCS has expressed dismay at its dwindling loan volume. Since supply is very elastic relative to demand, it is unlikely that the agricultural credit market would be expanded dramatically by an increase in supply.

Participation by FCS institutions in the secondary market could take the form of either origination or pooling. Selling 90 percent of the loan portfolio as required by legislation would tend to make FCS institutions as originators smaller. During a short-run adjustment period a higher overhead cost per dollar of loan would be inescapable, raising the cost of loans to FCS borrowers or cutting into potential profits.

Retaining the 10-percent ownership first tapped in case of borrower default implies for the same asset value (total loan portfolio held) the loan default rate per dollar of loan held is 10 times as great. This is not a short-run cost, and should be expected to add to the cost which the FCS charges for loans.

Historical evidence suggests that the FCS intermediation in the agricultural credit market using bonds to acquire funds is becoming increasingly difficult due to accentuated fluctuation in interest rates. Recent attempts to increase net income by increasing volume while decreasing the net interest margin have proven to be disastrous in a environment of volatile interest rates. There is no reason to believe interest rates will become less volatile in the foreseeable future. A more likely source of increased net income may be a decrease in the default rate of the loan portfolio and instigation of origination fees. Whether this alternative is viable remains to be seen.

The prospects of profitable enterprise for FCS institutions in their role as poolers are brighter. As poolers, the institutions are eligible for pooling fees and the negligible risk of default on loans. A small insurance charge has been legislated, but depending on the type of security the pooler issues, possibly all interest rate risk (the probability that the interest rate on mortgages falls below the rate paid to investors) may be side-stepped.

The bottom line remains that to the extent that institutions participate as originators in the secondary market, borrowers will be subject to greater scrutiny for risk, and should not expect much lower interest rates. Increased competition brought by the secondary market is not expected to lower loan prices at the expense of ignoring the much higher risk associated with the retained asset.

The reorganization clause of the 1987 act gives the FCS more flexibility structurally but adds to continuous shared responsibility. The net effect of the insurance clauses is meant to be a smoothing of economic health between institutions as well as through time. Recent legal battles over previously legislated collateral sharing leave this front an area to keep close watch on.

Farmers Home Administration

FmHA lending policy changes in 1987 and those changes for 1988, will have a significant influence on its loan portfolio. Many of these policy changes are designed to enhance the ability of FmHA borrowers to remain in farming or maintain their farm residence. While these objectives will likely be meet, they do come with a cost to FmHA (the cost of the new policies are yet uncertain).

New policies such as release of normal income security to accelerated borrowers and discontinuance of preempting USDA farm program payments are examples of such policy changes that could increase future FmHA loan losses. New requirements to restructure delinquent loans could force FmHA to recognize billions of dollars of inevitable loan write-offs.

Irrespective of new policy developments, the recent trend towards stability in farmer program delinquencies should continue in 1988. Massive loan servicing efforts in recent years coupled with high farm program payments explains much of the improvement. When possible, FmHA will continue to handle loan delinquencies by first using existing special servicing activities, before restructuring loans. Issuance of final FmHA regulations, other lenders' willingness to restructure loans and forebear on collection, and the use of these special loan servicing activities will likely determine the effect of the new restructuring polices on the agency's loan portfolio. Nevertheless, the restructuring of debt will likely remove loans from delinquent status, causing program delinquencies and loan volume to decline in 1988.

Most loan restructuring and loan write-downs will likely occur in the emergency loan programs. These programs account for 76 percent of the $6.6 billion in delinquent loan principal payments. Over $4.3 billion of these past-due principal payments are 3 or more years delinquent.

FmHA's role in providing farm credit and absorbing the risk of loans made by other lenders to financially troubled farmers will remain strong in 1988. Instituting a new loan guarantee program that provides FmHA-eligible borrowers greater ability to purchase FCS held farms is an example of the Government's continued commitment to providing financial assistance to high-risk farmers.

FmHA will continue to emphasis its guaranteed lending programs in 1988. Program rule changes requiring use of the Interest Rate Buydown Program before a lender can foreclose on a guaranteed loan could expand its use. Total fiscal 1988 program appropriations will approximate fiscal 1987 levels, except more of the total will continue to be allocated to the guaranteed programs. Like 1987, demand for farm ownership programs will likely surpass appropriations.

The rate of FmHA-initiated foreclosures will likely remain low in fiscal 1988. FmHA efforts to begin the lengthy foreclosure process on many FmHA borrowers was halted by a yet unresolved court order in 1987. During 1988, new delinquent and accelerated borrower notification requirements and lengthy appeal processes, coupled with State mediation programs and the implementation of the new loan restructuring policy, will likely forestall FmHA from initiating many foreclosures. Other borrower notification requirements and strict application processing deadlines could strain FmHA's ability to deliver its services to all farmer program borrowers. In addition, stricter rules limiting the sale of acquired farmland could increase the agency's inventory of acquired farmland during the coming year.

Life Insurance Companies

The farm financial situation will remain a major concern for life in- surance companies holding farm mortgages in 1988. Loan delinquencies and defaults will continue to be much higher than the historical experience of

recent decades. Companies will continue to forbear, extend, or otherwise adjust the terms of many problem loans, but in instances where reasonable projections do not allow for forbearance, they will proceed with foreclosure. Most farmers are adjusting to current farm mortgage difficulties as best they can, by selling assets, cutting costs, and, where possible, organizing their operations to take full advantage of farm programs. The farm sector's income recovery, lower debt burden, and land value stabilization give some cause for future optimism barring some new developments. Careful farm cost management and alleviation of the farm debt crisis will allow insurance companies some opportunities to make profitable loans.

Despite a continued high level of life insurance company farm loan delinquencies, there are some signs that the worst may be over. The companies have foreclosed on a relatively large amount of farm loans in recent years and absorbed considerable losses in the process. The many adjustments have led to smaller, but financially sounder farm loan port- folios. Despite their adjustments, many life insurance company farm loan departments will continue to spend a major portion of their time dealing with problem loans, or will contract with farm management companies for management expertise. Because of their experiences in the 1980's, insurance companies as a group will continue to view agricultural lending with considerable caution. Those companies making loans will do so on a very selective basis, often to existing customers. The objective will be to find high-quality borrowers who will provide large, low-risk loan opportunities. Money is available for new loans, but only for "qualified" applicants. Fixed-interest rate mortgages are available, but the terms more typically are for loans with interest rates that are adjusted periodically. The latter usually include terms under which a balloon payment is due at the end of the loan.

FARM INCOME TAXATION

Most farm proprietors will pay less in taxes under the Tax Reform Act of 1986. A major provision of the law becomes effective this year with the switch to just two tax brackets of 15 and 28 percent (table 32). Higher standard deductions are also effective this year, and by 1989, each personal exemption will have risen to $2,000. These changes are especially important for small family farmers.

About two-thirds of all farmers claim the standard deduction, and will be unaffected by the repeal of itemized deductions for State and local sales taxes and consumer interest. In recent years, only 25 percent of all farmers claimed the spousal (two-earner) deduction which was also repealed. About 80 percent of all farmers will be in the new 15-percent tax bracket, and unaffected by the repeal of income averaging. Under prior law (1982), only 11 percent of all farmers used income averaging.

Farm Investments

Although most farmers will benefit from tax reform, tax incentives for investments in farming have declined. In general, farm income is taxed more heavily under the new law as a result of the elimination of a number of deductions, credits, and other special tax provisions. Major changes include the repeal of the investment tax credit and the 60-percent exclusion for long-term capital gains. In addition, new rules limit the current deductibility of development expenditures for plants and animals with preproductive periods of 2 years or longer. Tax-shelter investments in agriculture by nonfarmers will also be affected by new limits on the deductibility of passive losses.

Farm Program Payments

Over the past year, many farmers have been troubled by the uncertain or unexpected tax treatment of some farm program payments. Foremost has been the treatment of "Quick PIK" transactions with generic certificates, which were the subject of two rulings by the Internal Revenue Service (IRS) during 1987.

Quick PIK refers to a transaction in which a farmer places crops under loan to the Commodity Credit Corporation (CCC) and then immediately reacquires the loan collateral with generic certificates. In February 1987, the IRS ruled that Quick PIK would be treated as a sale of grain to the CCC and subsequent repurchase of grain with generic certificates. Under this ruling,

Table 32.--Tax reform bill: Major provisions affecting individual taxpayers

Tax provision	Current law	Tax reform bill
Tax rate schedule		
Single	15 brackets 11% bottom rate 50% over $85,790	2 brackets 1/ 15% bottom rate 28% over $17,850
Head of household	14 brackets 11% bottom rate 50% over $114,390	2 brackets 1/ 15% bottom rate 28% over $25,300
Joint return	14 brackets 11% bottom rate 50% over $171,580	2 brackets 1/ 15% bottom rate 28% over $29,750
Standard deduction		
Single	$2,480	$3,000 2/
Head of household	2,480	4,400 2/
Joint return	3,670	5,000 2/
Personal exemption	$1,080	$2,000 3/
Spousal deduction	10 percent of earned income of lower-earning spouse, or $3,000, which ever less.	Repealed.
Itemized deductions (changes)		
State and local sales taxes	Deductible.	Nondeductible.
Consumer interest	Deductible.	Nondeductible.
Health insurance costs	Not deductible by the self-employed.	One-fourth of health insurance costs deductible.
Income averaging	Allowed if income is $3,000 more than 140% of prior 3-year average income.	Repealed.

1/ These schedules will become effective in 1988. In 1987, there will be five tax brackets of 11, 15, 28, 35 and 38.5 percent. 2/ Effective in 1988. 3/ Effective in 1989. Exemption is $1,900 in 1987 and $1,950 in 1988.

farmers would be subject to income tax on Quick PIK grain in the year of the transaction. The ruling troubled many farmers who had elected to treat CCC loans as loans (rather than income) for tax purposes. They had believed that Quick PIK grain would not be subject to income tax until the year in which it was marketed. Some of these farmers were facing much higher taxes because of the taxation of two crops in the same tax year.

In October 1987, after the Quick PIK tax issue had received widespread attention, the IRS revoked its February ruling. The reversal was based on USDA assurances that a Quick PIK transaction is a loan repayment rather than a sale and repurchase of grain. Under the October ruling, farmers who treat CCC loans as loans are not taxed on Quick PIK grain until it is marketed.

Participants in the Conservation Reserve Program (CRP) have also been troubled by tax questions. Many are uncertain whether CRP payments are subject to the self-employment tax. According to IRS, those taxpayers who file a Schedule F are required to report all CRP payments on Schedule F and pay self-employment taxes on the income. In general, active farmers (filing a Schedule F) will make fewer and higher bids for CRP participation as a result of the tax. Retired

farmers and others who do not file a Schedule F do not pay self-employment tax on CRP payments.

Farm Corporations

Corporate tax rates were reduced by the Tax Reform Act of 1986, but not by as much as individual tax rates. The top corporate rate is now 34 percent, versus a top individual rate of 28 percent. Incentives to incorporate the farm business have been reduced, thus the number of family farm corporations should not rise as rapidly as in prior years.

A new tax provision that takes effect in 1988 will limit the use of cash accounting by large family farm corporations. Under the new law, these farm corporations must switch to accrual accounting when their gross receipts exceed $25 million per year. The provision will affect only a few farms, but the Congress estimates that it could raise $100 million in additional tax revenue over the next 3 years. The rule for widely held farm corporations is unchanged; they must switch to accrual accounting when gross receipts exceed $1 million. In general, all unincorporated farms are allowed to use cash accounting.

Self-employment Tax

In January 1988, the self-employment (Social Security) tax rate increased from 12.3 to 13.02 percent, and the limit on taxable earnings was raised to $45,000. These changes and the new income tax law have raised the relative importance of the self-employment tax to low- and moderate-income farmers.

Table 33 compares the Federal income and self-employment taxes of farmers having various levels of net farm income. The income tax computations are based on the assumption that the farmer is married with two children and has no other income. The first $12,800 of income is exempt from income tax ($5,000 standard deduction plus four exemptions), but all income up to $45,000 is subject to the self-employment tax. The table shows that low-income farmers pay far more in self-employment taxes than income taxes. The maximum self-employment tax is $5,859 per year.

In general those who pay more in Social Security taxes receive larger benefits at retirement. However, there is considerable variation among individuals in the ratio of benefits received to taxes paid. Some workers can expect to receive a high rate of return on tax contributions, but those who expect low returns may view Social Security taxes as a burden similar to the income tax.

Table 33.--Tax treatment of farm capital under old and new law

Asset type	Investment tax credit		Tax life		Depreciation rate	
	Old law	New law	Old law	New law	Old law	New law
Motor vehicles 1/	6%	--	3 yr.	5 yr.	150%	200%
Farm machinery 2/	10%	--	5 yr.	7 yr.	150%	200%
Crop storage structures 3/	10%	--	5 yr.	7 yr.	150%	200%
Unitary livestock structures 4/	10%	--	5 yr.	7 yr.	150%	200%
Multipurpose structures 5/	--	--	19 yr.	20 yr.	175%	150%

1/ Autos and trucks. 2/ Tractors, combines, and all other farm machinery except motor vehicles. 3/ Silos, corn cribs, grain storage bins, and all other structures used principally for the bulk storage of crops. 4/ Milking parlors, poultry houses, unitary hog-raising facilities, and other structures used for the housing, raising, and feeding of a single type of livestock. 5/ Barns, machine sheds, garages, warehouses, dwellings for hired farm labor, structures used for the housing, raising, or feeding of more than one type of livestock, and all structures not classified elsewhere.

Appendix table 1.--Farm income, assets and debt, and returns 1/

Item	1980	1981	1982	1983	1984	1985	1986	1987F	1988F
	Billion dollars								
Income and total returns									
Gross farm income 2/	138	154	151	141	163	155	150	154	149-165
- wages & perquisites to hired labor	8	8	9	9	9	9	9	9	8-10
- other operating expenses, excluding interest	80	81	77	80	80	76	69	69	69-77
- capital consumption	18	20	20	20	19	17	16	15	13-15
= net income from assets & operators' labor & mgm't	33	46	44	33	55	54	56	63	58-64
- Income imputed to operators' labor & mgm't	21	24	23	22	27	23	20	24	24-26
= Residual income to assets	11	22	22	11	28	30	36	39	34-38
+ Real capital gain on assets	-1	-64	-67	-35	-123	-106	-63	-3	(-24)-(-26)
= Total return from assets	10	-42	-45	-24	-95	-75	-27	35	11-13
- Interest paid	16	19	21	21	20	18	16	14	13-15
+ Real capital gain on debt	14	11	8	7	7	6	4	3	2-4
= Total return from equity	9	-50	-58	-38	-108	-87	-39	25	0-2
- Real capital gain on assets and debt	13	-53	-59	-28	-117	-100	-59	0	(-20)-(22)
= Residual income to equity	-4	3	1	-10	8	12	20	25	21-23
Balance Sheet 3/									
Assets	375	621	843	975	849	750	692	712	705-720
- Debt	65	104	140	183	192	175	155	141	128-138
= Equity	310	517	703	792	658	575	537	569	575-585
	Percent								
Rates of return and interest rates									
Rate of return on assets	1.2	2.2	2.2	1.1	3.2	3.8	5.0	5.4	4-6
+ Real capital gain on assets	1.4	-5.3	-6.0	-2.9	-13.0	-12.5	-8.2	0.0	(-2)-(-4)
= Total real return	2.6	-3.1	-3.8	-1.8	-9.8	-8.7	-3.2	5.5	1-3
Interest paid	9.8	11.0	11.3	10.8	10.6	9.8	9.8	9.5	9-11
- Real capital gain on debt	9.1	6.6	4.3	3.8	3.4	3.3	2.3	2.3	1-3
= Real cost of debt	0.8	4.4	7.0	6.9	7.2	6.5	7.5	7.2	7-9
Spread 4/(total real return minus real cost of debt)	1.8	-7.5	-10.8	-8.7	-17.0	-15.2	-10.7	-1.7	(-5)-(-7)
Rate of return on equity	-0.6	0.4	0.1	-1.3	1.1	2.0	3.6	4.4	3-5
+ Real capital gain on equity	1.7	-6.4	-7.4	-3.7	-16.5	-16.2	-10.7	4.7	(-2)-(-4)
= Total real return	1.1	-6.1	-7.4	-4.9	-15.4	-14.2	-7.1	9.0	0-2

F=Forecast. 1/ Numbers may not add due to rounding. 2/ Excludes operator dwellings. 3/ Excludes operator households and CCC activity. 4/ When total real rate of return on assets exceeds total real cost of debt, debt financing is profitable.

Appendix table 2. Farm income and cash flow statement

Item	1983	1984	1985	1986	1987F	1988F
			-- Billion dollars -			
Farm income sources:						
1. Cash receipts	136.6	142.3	144.2	135.2	134	135-137
Crops 1/	67.1	69.4	74.4	63.6	59	62-65
Livestock	69.4	72.9	69.8	71.6	74	72-74
Cash Government payments	4.1	4.0	7.6	8.1	9	6-8
Value of PIK commodities	5.2	4.5	0.1	3.7	9	7-9
2. Direct Government payments	9.3	8.4	7.7	11.8	17	13-15
3. Farm-related income 2/	4.5	4.4	5.0	5.1	5	4-6
4. Gross cash income (1+2+3) 3/	150.4	155.1	156.9	152.0	156	154-156
5. Nonmoney income 4/	13.5	13.4	11.8	10.8	10	7-9
6. Realized gross income (4+5)	163.9	168.5	168.7	162.8	166	160-166
7. Value of inventory change	-10.9	6.2	-2.7	-3.3	-2	0-1
8. Total gross income (6+7)	153.1	174.7	166.0	159.5	163	161-167
Production expenses:						
9. Cash expenses 5/ 6/	113.3	116.3	109.6	100.1	99	99-101
10. Total expenses	140.4	142.7	133.7	122.1	119	119-121
Income statement:						
Net cash income: 1/ 6/						
11. Nominal (4-9)	37.1	38.8	47.3	52.0	57	50-55
Deflated (1982$) 7/	35.7	36.0	42.5	45.6	49	41-45
Net farm income: 1/						
12. Nominal total net (8-10)	12.7	32.0	32.3	37.5	45	40-45
Deflated total net (1982$) 7/	12.2	29.7	29.1	32.9	38	33-37
Deflated total net (1967$) 8/	4.3	10.3	10.0	11.4	13	10-14
13. Off-farm income	37.0	38.3	42.5	44.7	48	48-50
Other sources and uses of funds:						
14. Change in loans outstanding 6/	3.2	-1.9	-15.6	-20.3	-14	-9 to -13
Real estate	2.3	-1.1	-6.0	-9.6	-6	-4 to -8
Nonreal estate 9/	0.9	-0.8	-9.6	-10.7	-9	-4 to -6
15. Rental income & monetary chng.	5.3	8.9	8.8	7.8	7	7-9
16. Gross cash flow (11+14+15)	45.6	45.8	40.5	39.5	52	51-55
17. Capital expenditures 6/	12.7	12.5	9.6	8.6	7	7-9
18. Net cash flow 1/ 6/ (16-17)	32.9	33.3	30.9	30.9	43	40-45

F = Forecast. 1/ Includes net CCC loans. 2/ Income from custom work, machine hire, farm recreational activities, forest product sales, and misc. sources. 3/ Numbers in parentheses indicate components required to calculate a given item. 4/ Value of home consumption of farm products and imputed rental value of farm dwellings. 5/ Excludes depreciation, hired labor perquisites. 6/ Excludes farm households. 7/Deflated by the GNP implicit price deflator. 8/ Deflated by the CPI-U. 9/ Excludes CCC loans. Totals may not sum due to rounding.

Appendix table 3.--Relationship of net cash to net farm income

Item	1983	1984	1985	1986	1987F	1988F
	--- Billion dollars ---					
Gross cash income	150.4	155.1	156.9	152.0	156	154 to 156
Minus: cash expenses	113.3	116.3	109.6	100.1	99	99 to 101
Equals: Net cash income	37.1	38.8	47.3	52.0	57	50 to 55
Plus: Nonmoney income:						
Gross rental value of dwelling	37.1	38.8	47.3	52.0	57	50 to 55
Value of home consumption	1.1	1.1	0.9	0.9	1	0 to 2
Value of inventory change	-10.9	6.2	-2.7	-3.3	-2	0 to 1
Minus: Noncash expenses:						
Depreciation & capital consump.	23.9	23.1	20.9	19.0	18	15 to 17
Labor perquisites	0.7	0.8	0.8	0.6	1	1 to 2
Minus: Household expenses:						
Interest	0.9	0.9	0.8	0.6	0.6	0 to 1
Taxes	0.3	0.3	0.3	0.3	0.3	0 to 1
Repairs	0.2	0.4	0.3	0.3	0.3	0 to 1
Insurance	0.9	0.9	0.9	0.9	0.9	0 to 1
Equals:						
Net farm income	12.7	32.0	32.3	37.5	45	40 to 45

F = Forecast.

Appendix table 4.--Cash receipts 1983-1988

Item	1983	1984	1985	1986	1987F	1988F
			-- Billion dollars -			
Crop receipts: 1/						
Food grains	9.7	9.6	9.1	5.9	5	6 to 8
Wheat	8.8	8.5	7.9	5.2	5	4 to 6
Rice	0.9	1.0	1.1	0.7	0	0 to 2
Feed grains and hay	15.5	15.8	22.5	17.8	11	12 to 14
Corn	10.9	10.7	16.8	13.3	7	7 to 9
Grain sorghum	0.3	0.3	0.3	0.2	0	-1 to 1
Barley	1.0	1.1	1.0	0.8	1	0 to 2
Oats	1.2	1.5	2.0	1.4	1	0 to 2
Hay (all)	2.2	2.3	2.3	2.1	2	1 to 3
Oil crops	13.5	13.9	12.6	10.5	10	10 to 12
Soybeans	12.2	12.2	11.3	9.2	9	9 to 11
Peanuts	0.8	1.2	1.0	1.1	1	0 to 2
Other oil crops	0.6	0.5	0.3	0.3	0	-1 to 1
Cotton lint and seed	3.7	3.3	3.7	2.9	3	4 to 6
Tobacco	2.8	2.8	2.7	1.9	2	1 to 3
Fruits and nuts	6.1	6.8	6.8	6.9	8	7 to 9
Vegetables	8.5	9.1	8.6	8.7	10	8 to 10
Greenhouse & nursery	4.5	5.2	5.5	5.8	6	5 to 7
Other crops 1/	2.8	2.8	2.9	3.1	3	2 to 4
Total crops	67.1	69.4	74.4	63.6	59	62 to 65
Livestock receipts:						
Red meats	38.9	40.8	38.6	39.1	43	40 to 43
Cattle	26.7	28.7	27.0	26.9	30	28 to 32
Calves	2.0	2.0	2.1	2.1	2	1 to 3
Hogs	9.8	9.7	9.0	9.7	10	8 to 10
Sheep and lambs	0.4	0.5	0.5	0.5	1	0 to 2
Poultry and eggs	10.0	12.2	11.2	12.7	12	10 to 12
Broilers	4.9	6.0	5.7	6.8	6	5 to 7
Turkeys	1.3	1.7	1.8	2.0	2	1 to 3
Eggs	3.4	4.1	3.3	3.5	3	2 to 4
Other poultry	0.4	0.4	0.4	0.4	0	-1 to 1
Dairy products	18.8	17.9	18.1	17.8	18	15 to 20
Wholesale milk 2/	18.5	17.7	17.8	17.6	17	15 to 20
Retail milk	0.3	0.3	0.3	0.3	0	-1 to 1
Other livestock	1.8	2.0	1.9	1.9	2	1 to 3
Total livestock	69.4	72.9	69.8	71.6	74	72 to 74
Total receipts	136.6	142.3	144.2	135.2	134	135 to 137
Program 3/	62.9	62.2	67.6	56.3	51	52 to 60
Non-program 4/	73.7	80.2	76.6	78.9	83	75 to 85

F = Forecast. Totals may not add due to rounding. 1/ Includes sugar, seed, and other misc. crops. 2/ Milk receipts do not reflect price deductions levied on marketings. These deductions appear as production expenses since the NASS "all milk" price does not include them. 3/ Receipts from commodities directly supported by farm programs. 4/ Commodities not receiving direct support. 4/ Commodities not receiving direct support.

Appendix table 5. -Farm income distribution by enterprises type 1/

Item	Crop Farms	Cash Grain 2/	Tobacco	Cotton	Fruit, Nut, Vegetables	Livestock Farms	Red Meat	Dairy	Poultry
Number of farms				-Thousands-					
1986	887	472	80	21	100	1,327	868	229	27
1987f	871	463	79	21	98	1,303	852	225	27
1988f	847	451	77	21	95	1,268	829	219	26
a. Cash receipts:				-Million dollars-					
Crops									
1986	57,172	24,661	1,698	2,921	15,072	6,420	4,961	953	71
1987f	54,000	19,000	1,500	3,300	17,017	5,400	4,200	800	100
1988f	59,000	23,000	1,600	4,100	17,000	6,100	4,800	900	100
Livestock									
1986	4,743	3,620	130	48	168	66,765	31,892	19,911	11,866
1987f	5,200	4,000	100	50	200	70,000	35,000	20,000	11,000
1988f	5,000	3,800	100	50	200	67,000	34,000	19,000	11,000
b. Direct Gov't payments									
1986	8,423	6,911	52	696	71	3,393	2,503	735	18
1987f	12,000	10,000	100	900	100	5,000	4,000	1,000	30
1988f	10,000	8,000	70	700	100	4,000	3,000	800	20
c. Gross cash inc. 3/									
1986	71,957	36,086	1,906	3,746	15,581	80,012	41,603	21,901	12,145
1987f	73,000	35,000	2,000	4,300	18,000	83,000	45,000	23,000	11,000
1988f	76,000	36,000	2,000	5,000	17,000	81,000	44,000	22,000	11,000
d. Cash expenses									
1986	45,191	24,678	1,176	2,462	7,769	54,863	30,226	16,889	3,010
1987f	44,000	24,000	1,000	2,000	8,000	55,000	31,000	16,000	3,000
1988f	45,000	24,000	1,000	2,000	8,000	56,000	31,000	17,000	3,000
Net Cash Income:									
e. Current dollars 4/									
1986	26,765	11,407	730	1,284	7,813	25,149	11,377	5,012	9,135
1987f	29,000	10,000	700	2,000	10,000	29,000	15,000	6,000	8,000
1988f	32,000	12,000	700	3,000	9,000	25,000	13,000	5,000	8,000
f. Deflated (1982 $)									
1986	23,458	9,998	640	1,125	6,847	22,041	9,971	4,393	8,006
1987f	25,000	9,000	600	1,600	8,500	24,000	12,000	5,000	7,000
1988f	26,000	10,000	600	2,000	8,000	21,000	11,000	4,000	6,000
Balance Sheet:									
g. Farm assets:									
Real estate									
1986	213,218	106,609	9,182	6,988	37,135	296,873	196,538	59,936	6,733
1987f	222,000	111,000	10,000	7,000	39,000	309,000	204,000	62,000	7,000
1988f	254,000	142,000	10,000	7,000	39,000	313,000	207,000	63,000	7,000
Nonreal estate									
1986	77,608	50,701	2,107	2,889	8,062	103,874	57,594	33,156	1,620
1987f	76,000	50,000	2,000	3,000	8,000	103,000	57,000	33,000	1,600
1988f	75,000	49,000	2,000	3,000	8,000	102,000	57,000	32,000	1,600
h. Total liabilities									
1986	79,574	49,814	1,414	4,963	9,253	75,384	39,217	28,106	1,713
1987f	72,000	45,000	1,000	5,000	8,000	68,000	36,000	26,000	1,800
1988f	66,000	41,000	1,000	4,000	8,000	63,000	38,000	23,000	1,700
i. Debt-to-asset ratio									
1986	27.36%	31.67%	12.53%	50.25%	20.47%	18.81%	15.43%	30.19%	20.51%
1987f	24.2%	28.2%	11.1%	45.1%	17.6%	16.6%	13.6%	26.8%	18.1%
1988f	20.1%	21.7%	10.1%	41.0%	15.9%	15.2%	12.4%	24.5%	16.4%

F=Forecast. 1/ Farms types are defined as those with 50 percent or more of all sales accounted for by a specific commodity or commodity group. 2/ Includes farms earning at least half their receipts from sales of wheat, corn, soybeans, rice, sorghum, barley, oats or a mix of cash grains. 3/ Equals a + b + farm related income. /4 Equals c - d. Numbers may not add due to rounding.

Appendix table 6.--Farm production expenses, 1983-1988

Item	1983	1984	1985	1986	1987F	1988F
	-- Billion dollars --					
Farm-origin inputs	33.5	32.8	30.4	28.8	30	29 to 32
Feed	21.7	19.9	18.0	16.2	16	16 to 18
Livestock	8.8	9.5	9.0	9.6	12	10 to 12
Seed	3.0	3.4	3.4	3.0	3	2 to 3
Manufactured inputs	20.9	21.5	20.8	17.0	16	15 to 17
Fertilizer	7.1	7.4	7.3	5.8	5	5 to 6
Fuels and oils	7.5	7.1	6.6	4.8	5	4 to 5
Electricity	2.1	2.2	2.2	2.1	2	2 to 3
Pesticides	4.2	4.8	4.8	4.3	4	3 to 4
Total interest charges	21.4	21.1	18.7	16.9	15	13 to 15
Short-term interest	10.6	10.4	8.8	7.8	6	5 to 6
Real estate interest	10.8	10.7	9.9	9.1	8	7 to 8
Other operating expenses	31.1	31.4	30.6	29.5	30	29 to 32
Repair and maintenance	6.5	6.4	6.4	6.4	7	7 to 8
Labor expenses	9.7	9.7	9.8	9.9	10	10 to 12
Machine hire & custom work	1.9	2.2	2.2	1.8	2	1 to 2
Animal health	1.4	1.3	1.2	1.2	1	1 to 2
Marketing, storage & trans.	3.9	4.0	4.1	3.7	3	4 to 5
Misc. operating expenses	7.0	7.1	6.7	6.2	6	6 to 7
Other overhead expenses	33.4	35.8	33.2	29.8	28	26 to 29
Capital consumption	23.9	23.1	20.9	19.0	17	16 to 17
Taxes	4.5	4.1	4.2	4.1	4	4 to 5
Net rent to nonoperating landlords	5.1	8.6	8.1	6.7	7	7 to 8
Total production expenses	140.4	142.7	133.7	122.1	119	119 to 121
Interest on oper. dwelling	0.9	0.9	0.8	0.7	1	0 to 2
Taxes on operator dwelling	0.3	0.3	0.3	0.3	0	-1 to 1
Repairs on oper. dwelling	0.4	0.4	0.5	0.5	1	0 to 2
Insurance on oper. dwelling	0.9	0.9	0.9	0.9	1	0 to 2
Labor perquisites (noncash)	0.7	0.8	0.8	0.6	1	0 to 2
Noncash & household expen	3.2	3.2	3.2	3.0	3	2 to 4
Cash expenses 2/	113.3	116.3	109.6	100.1	99	99 to 101

F = Forecast. 1/ Includes only net deductions from milk prices. 2/ Cash expenses equal total expenses minus depreciation, operator dwelling expenses, and noncash labor benefits.

Appendix table 7.--Balance sheet of the farming sector, excluding operator households, December 31*/

Item	1983	1984	1985	1986	1987F	1988F
			--Billion dollars -			
Assets:						
Real estate	739.6	639.6	558.9	510.1	530	530 to 540
Nonreal estate:						
Livestock and poultry	49.7	49.6	46.3	47.6	49	47 to 50
Machinery and motor vehicles	100.8	96.9	87.7	80.4	77	71 to 75
Crops stored 1/	23.7	29.6	23.1	18.4	19	17 to 21
Financial assets	31.3	32.8	34.2	35.0	36	35 to 39
Total nonreal estate	205.4	208.9	191.2	181.5	181	174 to 179
Total farm assets	945.0	848.5	750.1	691.6	712	705 to 720
Liabilities:						
Real estate 2/	104.8	103.7	97.7	88.1	83	75 to 81
Nonreal estate 1/	87.9	87.1	77.5	66.8	58	53 to 57
Total farm liabilities	192.7	190.8	175.2	155.0	141	128 to 138
Total farm equity	752.3	657.7	574.9	536.6	571	575 to 585
			Percent			
Selected ratios:						
Debt-to-asset	20.4	22.5	23.4	22.4	20	17 to 20
Debt-to-equity	25.6	29.0	30.5	28.9	25	21 to 24
Debt-to-net cash income	519.2	491.7	370.6	298.1	247	230 to 247

F = Forecast. */ 1981 was the peak peak year for nominal asset values. Equity peaked in 1980.
1/ Excludes CCC loans. 2/ Includes CCC storage and drying loans.

Appendix table 8.--Farm financial ratios: liquidity, solvency, profitability, and financial efficiency

Farm financial ratios:	1980	1981	1982	1983	1984	1985	1986	1987F	1988F
Liquidity ratios:					Ratio				
Household debt service coverage 1/	2.73	2.42	2.44	2.41	2.51	3.12	3.72	3.9	4.0-4.2
Farm business debt service coverage 2/	1.86	1.66	1.74	1.71	1.76	2.14	2.50	2.65	2.8-3.0
Debt servicing 3/	0.19	0.22	0.23	0.22	0.21	0.18	0.17	0.15	0.1-0.2
Times interest earned ratio 4/	2.23	2.57	2.26	1.80	2.71	2.96	3.46	4.5	4.2-4.4
Solvency ratios:					Percent				
Debt/asset 5/	16.7	18.3	19.7	20.4	22.5	23.4	22.4	20	17-20
Leverage 6/	20.1	22.4	24.6	25.6	29.0	30.5	28.9	27	26-27
Financial leverage index 7/	-0.47	0.16	0.03	-1.12	Ratio 0.36	0.53	0.72	0.80	0.76-0.84
Profitability ratios:					Percent				
Return on equity 8/	-0.6	0.4	0.1	-1.3	1.1	2.0	3.6	4.4	3-5
Return on assets 9/	1.2	2.2	2.2	1.1	3.2	3.8	5.0	5.4	4-6
Net farm to gross cash farm income 10/	11.3	18.4	15.6	8.4	20.6	20.6	24.7	29	28-30
Financial efficiency ratios:					Percent				
Gross ratio 11/	76.1	77.6	74.7	75.3	75.0	69.9	65.8	63	60-70
Interest to gross cash farm income 12/	10.9	13.1	13.9	13.7	13.1	11.4	10.7	9	8-10
Asset turnover 13/	15.1	14.7	15.4	15.8	17.3	19.6	21.1	22	21-23
Net cash farm income to debt ratio 14/	31.3	29.7	31.8	30.2	30.8	35.6	41.3	48	46-50

F=Forecast. 1/ Assesses the ability of farm sector households to repay both principal and interest. 2/ Assesses the ability of farm businesses to repay both principal and interest. 3/ Indicates the proportion of gross cash farm income needed to service debt. 4/ Shows the farm sector's ability to service debt out of net income. 5/ Shows the proportion of all assets that are financed with debt. 6/ Measures the relative proportion of funds provided by creditors(debt) and owners(equity). 7/ Indicates whether or not the use of financial leverage is beneficial. 8/ Measures the ability of farm sector management to realize an adequate return on the capital invested by the owner(s). 9/ Measures how efficiently managers use farm assets. 10/ The profit margin indicates profits earned per dollar of gross income. 11/ Gives the portion of gross cash farm income absorbed by production expenses (claims on farm businesses). 12/ Gives the proportion of gross cash farm income committed to interest payments. 13/ Measures the gross farm income generated per dollar of farm business assets. 14/ Indicates the burden placed on net cash farm income to retire outstanding debt.

Appendix table 9.--Real estate farm debt excluding households, December 31

Year	Debt owed to reporting institutions					Individuals and others	CCC Storage and drying facilities	Total
	Federal Land Banks	Life insurance companies	All operating banks	Farmers Home Administration	Total			
	Million dollars							
1974	12,187	5,799	5,312	2,899	26,197	14,363	217	40,778
1975	14,533	6,198	5,621	3,044	29,396	15,764	170	45,331
1976	16,881	6,828	6,075	3,311	33,095	17,258	144	50,495
1977	19,640	8,150	6,994	3,613	38,397	19,556	492	58,445
1978	22,686	9,698	7,717	3,746	43,847	21,712	1,148	66,707
1979	27,322	11,278	7,798	6,254	52,652	25,660	1,391	79,704
1980	33,208	11,991	7,760	7,431	60,390	27,801	1,456	89,647
1981	40,254	12,136	7,573	8,086	68,049	29,291	1,342	98,682
1982	43,966	11,898	7,626	8,361	71,851	29,527	1,127	102,505
1983	45,026	11,834	8,494	8,718	74,072	29,847	888	104,806
1984	45,321	11,592	9,313	9,206	75,432	27,636	623	103,691
1985	41,204	11,035	10,443	9,540	72,222	25,160	307	97,690
1986	34,773	10,199	11,338	9,482	65,792	22,218	123	88,132
1987p	30,800	9,478	13,025	9,073	62,376	20,073	60	82,509
	Percent change in year							
1974	23.7	5.8	9.7	6.9	14.5	11.2	-21.9	13.0
1975	19.3	6.9	5.8	5.0	12.2	9.8	-21.7	11.2
1976	16.2	10.2	8.1	8.8	12.6	9.5	-15.3	11.4
1977	16.3	19.4	15.1	9.1	16.0	13.3	241.7	15.7
1978	15.5	19.0	10.3	3.7	14.2	11.0	133.3	14.1
1979	20.4	16.3	1.0	67.0	20.1	18.2	21.2	19.5
1980	21.5	6.3	-0.5	18.8	14.7	8.3	4.7	12.5
1981	21.2	1.2	-2.4	8.8	12.7	5.4	-7.8	10.1
1982	9.2	-2.0	0.7	3.4	5.6	0.8	-16.0	3.9
1983	2.4	-0.5	11.4	4.3	3.1	1.1	-21.2	2.2
1984	0.7	-2.0	9.6	5.6	1.8	-7.4	-29.8	-1.1
1985	-9.1	-4.8	12.1	3.6	-4.3	-9.0	-50.7	-5.8
1986	-15.6	-7.6	8.6	-0.6	-8.9	-11.7	-59.9	-9.8
1987p	-11.4	-7.1	14.9	-4.3	-5.2	-9.7	-51.2	-6.4
	Percentage distribution of debt							
1974	29.9	14.2	13.0	7.1	64.2	35.2	0.5	100.0
1975	32.1	13.7	12.4	6.7	64.8	34.8	0.4	100.0
1976	33.4	13.5	12.0	6.6	65.5	34.2	0.3	100.0
1977	33.6	13.9	12.0	6.2	65.7	33.5	0.8	100.0
1978	34.0	14.5	11.6	5.6	65.7	32.5	1.7	100.0
1979	34.3	14.1	9.8	7.8	66.1	32.2	1.7	100.0
1980	37.0	13.4	8.7	8.3	67.4	31.0	1.6	100.0
1981	40.8	12.3	7.7	8.2	69.0	29.7	1.4	100.0
1982	42.9	11.6	7.4	8.2	70.1	28.8	1.1	100.0
1983	43.0	11.3	8.1	8.3	70.7	28.5	0.8	100.0
1984	43.7	11.2	9.0	8.9	72.7	26.7	0.6	100.0
1985	42.2	11.3	10.7	9.8	73.9	25.8	0.3	100.0
1986	39.5	11.6	12.9	10.8	74.7	25.2	0.1	100.0
1987p	37.3	11.5	15.8	11.0	75.6	24.3	0.1	100.0

P = Preliminary.

Appendix table 10. -Nonreal estate farm debt excluding housholds, December 31

Year	Debt owed to reporting institutions					Individuals and others	Total	CCC crop loans
	Production Credit Associations	Federal Intermediate Credit Banks	All operating banks	Farmers Home Administration	Total			
	Million dollars							
1974	9,150	374	17,235	919	27,678	7,398	35,075	304
1975	10,339	350	19,051	1,560	31,300	8,382	39,682	232
1976	11,759	368	22,002	1,652	35,781	9,789	45,570	936
1977	12,978	376	24,295	2,764	40,413	11,999	52,412	4,146
1978	14,369	511	26,718	5,086	46,684	14,011	60,695	4,646
1979	17,388	666	29,327	8,188	55,569	16,278	71,848	3,714
1980	18,939	811	29,986	10,029	59,765	17,367	77,132	3,525
1981	20,355	914	31,215	12,706	65,190	18,404	83,593	6,666
1982	19,686	872	34,322	12,977	67,857	19,139	86,996	14,525
1983	18,542	850	37,075	12,855	69,322	18,566	87,888	9,911
1984	17,211	875	37,619	13,740	69,445	17,640	87,084	8,319
1985	13,465	537	33,738	14,714	62,454	15,070	77,525	17,029
1986	10,306	275	29,678	14,425	54,684	12,143	66,827	18,682
1987p	8,891	237	25,445	13,314	47,887	10,319	58,207	13,000
	Percent change in year							
1974	22.0	13.0	6.2	19.0	11.5	10.0	11.2	-55.7
1975	13.0	-6.4	10.5	69.7	13.1	13.3	13.1	-23.7
1976	13.7	5.1	15.5	5.9	14.3	16.8	14.8	303.4
1977	10.4	2.2	10.4	67.3	12.9	22.6	15.0	342.9
1978	10.7	35.9	10.0	84.0	15.5	16.8	15.8	12.1
1979	21.0	30.3	9.8	61.0	19.0	16.2	18.4	-20.1
1980	8.9	21.8	2.2	22.5	7.6	6.7	7.4	-5.1
1981	7.5	12.7	4.1	26.7	9.1	6.0	8.4	89.1
1982	-3.3	-4.6	10.0	2.1	4.1	4.0	4.1	117.9
1983	-5.8	-2.5	8.0	-0.9	2.2	-3.0	1.0	-31.8
1984	-7.2	2.9	1.5	6.9	0.2	-5.0	-0.9	-16.1
1985	-21.8	-38.6	-10.3	7.1	-10.1	-14.6	-11.0	104.7
1986	-23.5	-48.8	-12.0	-2.0	-12.4	-19.4	-13.8	9.7
1987p	-13.7	-13.8	-14.3	-7.7	-12.4	-15.0	-12.9	-30.4
	Percentage distribution of debt							
1974	26.1	1.1	49.1	2.6	78.9	21.1	100.0	
1975	26.1	0.9	48.0	3.9	78.9	21.1	100.0	
1976	25.8	0.8	48.3	3.6	78.5	21.5	100.0	
1977	24.8	0.7	46.4	5.3	77.1	22.9	100.0	
1978	23.7	0.8	44.0	8.4	76.9	23.1	100.0	
1979	24.2	0.9	40.8	11.4	77.3	22.7	100.0	
1980	24.6	1.1	38.9	13.0	77.5	22.5	100.0	
1981	24.4	1.1	37.3	15.2	78.0	22.0	100.0	
1982	22.6	1.0	39.5	14.9	78.0	22.0	100.0	
1983	21.1	1.0	42.2	14.6	78.9	21.1	100.0	
1984	19.8	1.0	43.2	15.8	79.7	20.3	100.0	
1985	17.4	0.7	43.5	19.0	80.6	19.4	100.0	
1986	15.4	0.4	44.4	21.6	81.8	18.2	100.0	
1987p	15.3	0.4	43.7	22.9	82.3	17.7	100.0	

P = Preliminary.

Appendix table 11.--Selected agricultural interest rates on real estate loans, 1960-87 1/

Year	Prime Rate charged by banks 2/	3-month Treasury bills 2/	Real Estate: Federal Land Banks 3/	Real Estate: Life insur. companies 4/	Real Estate: FmHA 5/	Av. on farm real estate loans 6/
			Percent			
1960	4.82	2.95	6.00	5.00	5.00	5.02
1965	4.54	3.95	5.60	5.50	5.00	5.36
1970	7.91	6.44	8.68	9.31	5.00	5.92
1975	7.86	5.82	8.69	10.03	5.00	7.01
1980	15.27	11.61	10.39	13.21	11.05	8.31
I	16.40	13.46	9.87	12.47	10.29	NA
II	16.32	10.05	10.78	14.24	11.73	NA
III	11.61	9.24	10.52	12.58	11.00	NA
IV	16.73	13.71	10.37	13.56	11.16	NA
1981	18.87	14.07	11.27	15.42	13.00	9.05
I	19.21	14.37	10.76	14.06	12.20	NA
II	18.93	14.83	10.99	14.91	13.23	NA
III	20.32	15.09	11.51	16.23	13.25	NA
IV	17.01	12.02	11.83	16.48	13.25	NA
1982	14.86	10.72	12.27	15.51	12.94	9.70
I	16.27	12.90	12.17	16.36	13.25	NA
II	16.50	12.36	12.28	16.21	13.25	NA
III	14.72	9.71	12.35	15.99	13.25	NA
IV	11.96	7.94	12.29	13.46	12.01	NA
1983	10.79	8.62	11.63	12.47	10.79	9.69
I	10.88	8.08	11.90	12.93	10.89	NA
II	10.50	8.42	11.70	12.30	10.75	NA
III	10.80	9.19	11.49	12.08	10.75	NA
IV	11.00	8.79	11.44	12.55	10.75	NA
1984	12.04	9.57	11.76	13.49	10.75	9.55
I	11.07	9.13	11.50	13.04	10.75	NA
II	12.31	9.84	11.62	13.56	10.75	NA
III	12.99	10.34	11.79	13.71	10.75	NA
IV	11.80	8.97	12.14	13.65	10.75	NA
1985	9.93	7.49	12.24	12.60	10.75	9.09
I	10.54	8.18	12.24	12.88	10.75	NA
II	10.20	7.52	12.40	12.73	10.75	NA
III	9.50	7.10	12.40	12.50	10.75	NA
IV	9.50	7.15	12.40	12.34	10.75	NA
1986	8.33	5.97	11.61	11.95	9.13	9.08
I	9.37	6.89	11.90	12.78	10.75	NA
II	8.61	6.13	11.50	12.04	9.25	NA
III	7.85	5.53	11.10	11.80	8.25	NA
IV	7.50	5.34	11.95	11.20	8.25	NA
1987	8.15	5.83	11.10	NA	8.75	8.68 7/
I	7.50	5.53	11.40	10.80	8.25	NA
II	8.05	5.73	10.90	10.60	8.25	NA
III	8.40	6.03	10.75	NA	9.25	NA
IV	8.92	6.11	11.50	NA	9.25	NA

NA= Not available. 1/ For historical data see Agricultural Finance Statistics, USDA, ERS, 1960-83. 2/ Source: ERS Darts Data System, Feburary 1988. 3/ Source: Farm Credit Administration. 4/ Estimated by ERS from data obtained in a quarterly life insurance survey. 5/ Average for new FmHA loans, rates are weighted by length of time various rates were in effect during the quarter. 6/ Computed from data in Economic Indicators of the Farm Sector, 1986, USDA, ERS. Average interest rate on outstanding debt, excludes farm operator household interest and debt. 7/ Average interest rate on real estate, debt for 1987 is an estimate using ERS forecast data.

Appendix table 12.--Selected agricultural interest rates on nonreal estate loans, 1960-87 1/

Year	Nonreal Estate						
	Commercial Banks 2/			Production Credit Assns. 3/	FmHA 4/	Ave. nonreal estate 5/	Ave. on total farm debt 5/
	All loans	Large	Other				
	Percent						
1960	6.80	NA	NA	7.25	5.00	6.85	5.80
1965	6.70	NA	NA	6.58	5.00	6.38	5.84
1970	8.32	NA	NA	9.45	6.88	7.84	6.76
1975	9.03	NA	NA	9.11	8.63	8.21	7.57
1980	15.20	16.20	15.00	12.74	11.00	11.70	9.91
I	14.10	15.00	16.00	12.07	10.64	NA	NA
II	17.40	17.80	18.50	13.65	12.01	NA	NA
III	13.50	14.50	12.80	13.25	10.50	NA	NA
IV	15.50	15.80	16.30	11.99	10.83	NA	NA
1981	18.50	19.80	18.10	14.46	14.04	13.34	11.04
I	17.90	19.90	17.50	12.90	13.00	NA	NA
II	17.90	19.50	17.50	14.19	14.15	NA	NA
III	19.60	20.80	19.10	15.04	14.50	NA	NA
IV	18.80	18.90	18.70	15.71	14.50	NA	NA
1982	16.70	16.10	17.00	14.58	13.73	13.31	11.36
I	17.70	18.00	17.50	15.26	14.33	NA	NA
II	17.80	17.90	17.70	14.84	14.25	NA	NA
III	16.70	15.60	16.40	14.42	14.25	NA	NA
IV	14.70	13.30	15.40	13.80	12.09	NA	NA
1983	13.50	12.10	14.10	11.95	10.31	12.14	10.82
I	13.80	12.50	14.10	12.83	10.74	NA	NA
II	13.20	12.00	13.90	11.77	10.25	NA	NA
III	13.60	12.20	14.10	11.37	10.25	NA	NA
IV	13.60	11.80	14.20	11.82	10.25	NA	NA
1984	14.10	13.10	14.40	12.47	10.25	11.88	10.62
I	13.50	12.20	14.10	12.05	10.25	NA	NA
II	14.20	13.30	14.50	12.10	10.25	NA	NA
III	14.80	14.40	14.90	12.61	10.25	NA	NA
IV	14.20	13.40	14.40	13.10	10.25	NA	NA
1985	12.80	11.20	13.40	12.40	10.25	10.72	9.82
I	13.20	11.70	13.80	12.91	10.25	NA	NA
II	13.00	11.50	13.60	12.50	10.25	NA	NA
III	12.30	10.60	12.90	12.16	10.25	NA	NA
IV	12.30	10.60	13.10	12.03	10.25	NA	NA
1986	11.50	9.60	12.10	11.22	8.66	10.80	9.83
I	12.00	10.30	12.80	11.40	10.25	NA	NA
II	11.50	9.70	12.00	11.25	8.71	NA	NA
III	11.40	9.30	12.10	11.25	8.00	NA	NA
IV	10.80	8.90	11.50	11.00	7.67	NA	NA
1987	10.60	9.20	11.30	NA	8.12	10.40 6/	9.40 6/
I	10.20	8.50	11.20	10.10	7.50	NA	NA
II	10.60	9.40	11.00	10.00	7.50	NA	NA
III	10.40	9.30	11.10	10.00	8.75	NA	NA
IV	11.00	9.70	11.70	NA	8.75	NA	NA

NA= Not available. 1/ For historical data see Agricultural Finance Statistics, USDA, ERS, 1960-83. 2/ Source: Federal Reserve Board and Agricultural Finance Databook, June 1987, Board of Governors of the Federal Reserve System, Emanual Melichar. 3/ Source: Farm Credit Administration. 4/ Average for new FmHA loans, rates are weighted by length of time various rates were in effect during the quarter. 5/ Computed from data in Economic Indicators of the Farm Sector, 1986, USDA, ERS. Average interest rate on outstanding debt, excludes farm operator household interest and debt. 6/ Average interest rates on real estate, nonreal estate, and total farm debt for 1987 are estimates using ERS forecast data.

☆U.S.GOVERNMENT PRINTING OFFICE:1988-201-025:60598/ERS

United States
Department of Agriculture
1301 New York Avenue N. W.
Washington, D. C. 20005-4788

OFFICIAL BUSINESS
Penalty for Private Use, $300

Moving? To change your address, send this sheet with label intact, showing new address, to EMS Information, Rm. 228, 1301 New York Ave., N.W. Washington, D.C. 20005-4788

FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. Dept. of Agriculture
Permit No. G-145